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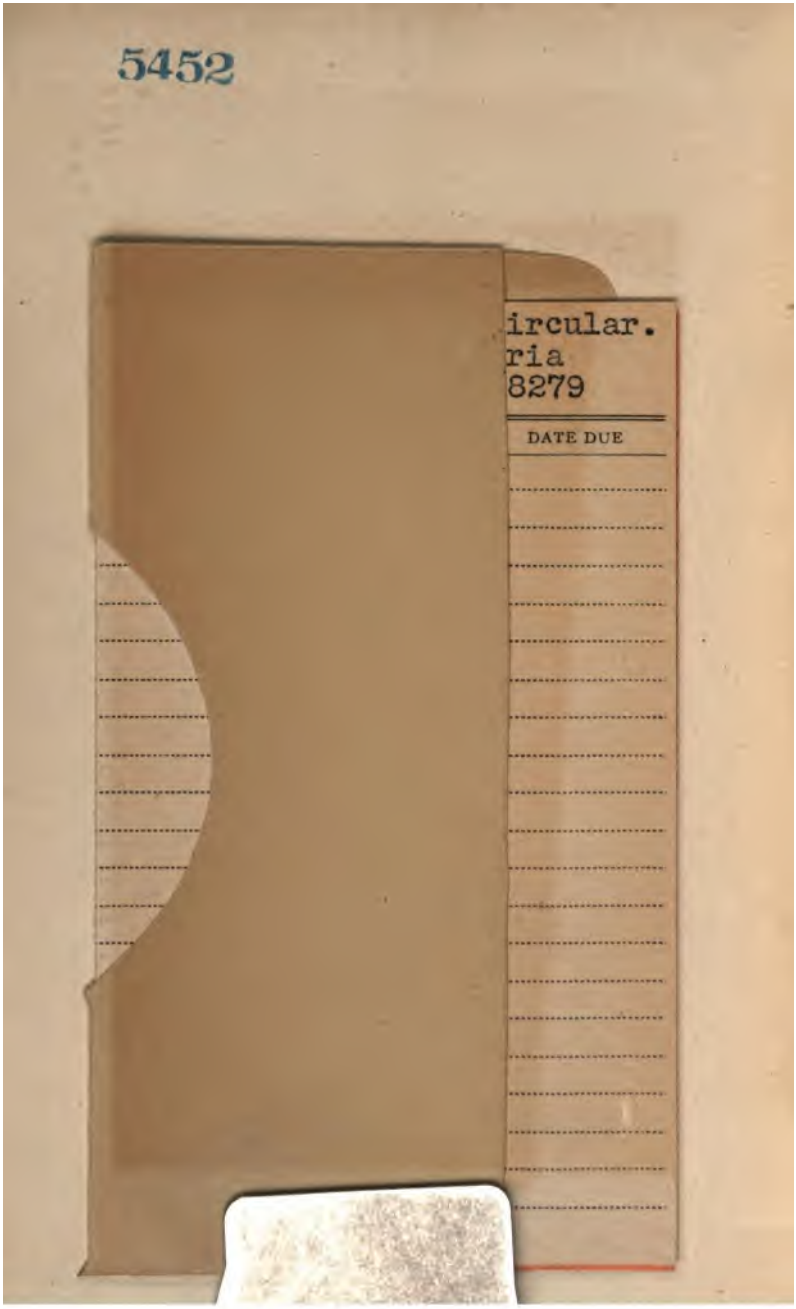

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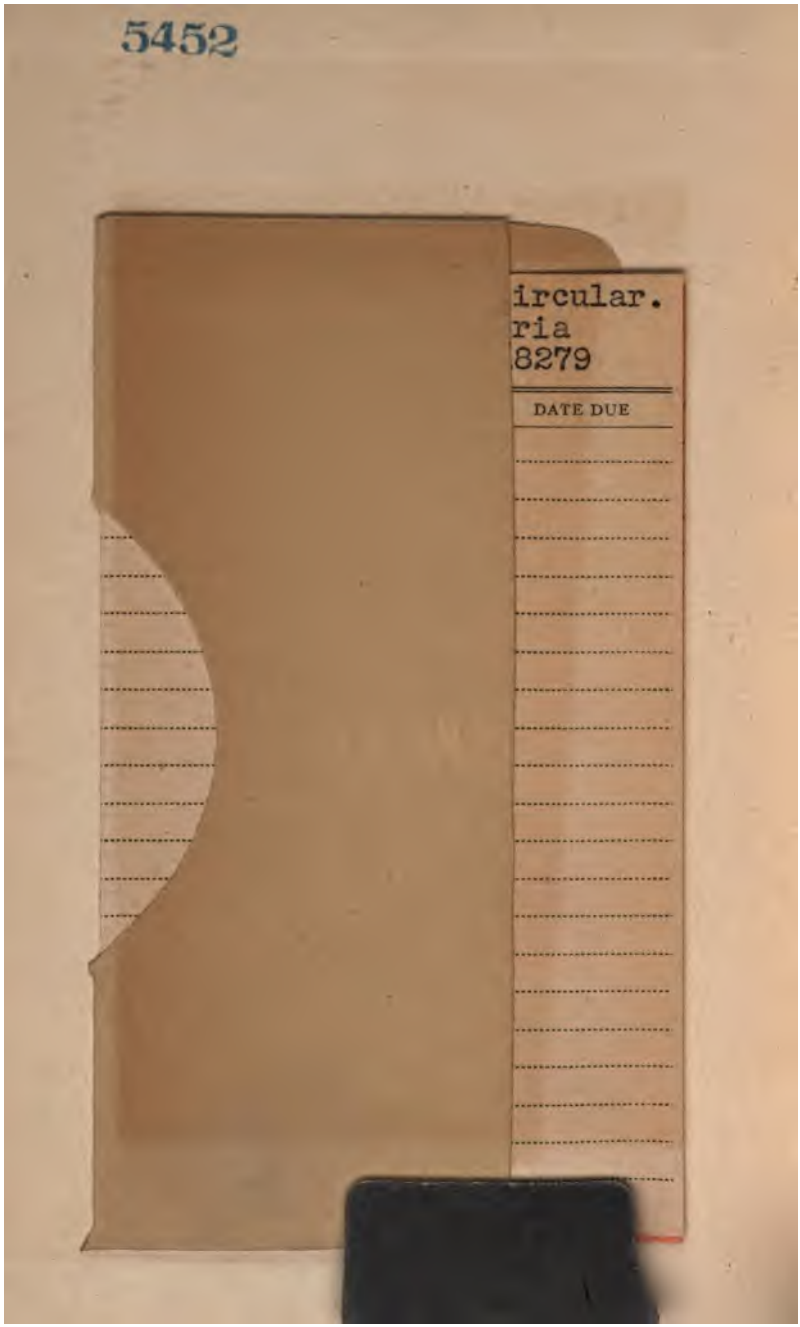

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THE
MODERN MATERIA MEDICA

The Source, Chemical and Physical Properties, Therapeutic Action, Dosage, Antidotes and Incompatibles of all Additions to the Newer Materia Medica that are Likely to be Called for on Prescriptions.

NEW YORK:
THE DRUGGISTS CIRCULAR
100 William Street
1906

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INTRODUCTION.

It is practically impossible for the pharmacist of to-day to keep pace with the developments in modern chemistry as regards new remedies. Hundreds and hundreds of new therapeutic agents are introduced and advertised yearly, some meritorious and of permanent interest, others of but passing importance.

With a view of affording a source of accurate and unbiased information concerning the newer additions to the materia medica, THE DRUGGISTS CIRCULAR some time ago began the publication of an extended descriptive list of new remedies, including some older substances newly brought to the attention of the medical profession, and also a number of nutritives specially designed for use by the sick and convalescent.

In conjunction with the regular alphabetical continuation of the list from one issue to another of the CIRCULAR, all the remedial agents that were introduced from time to time during its publication were described in supplemental lists, thus constantly bringing the matter up to date.

These lists were completed in the issue for November, 1905. They have since been revised and rearranged, so that all their items appear in continuous alphabetical order, and are now presented in the following pages.

It is confidently believed that "The Modern Materia Medica" is the most complete and reliable book of its kind now obtainable and that it will prove a valuable addition to the reference library of the pharmacist.

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Abilena is an American natural cathartic water, the saline ingredients of which are stated to consist mainly of sodium phosphate (98 per cent.) and magnesium sulphate (2 per cent.).

Abrin (also known as *jequiritin*).—The active principle of jequirity seed (abrus precatorius). It is a yellowish or brownish powder, soluble in sodium chloride solution. While extremely poisonous when introduced into the circulation, it is believed to be harmless when swallowed. It is used in 1:500,000 solution in place of jequirity infusion, in pannus, chronic conjunctivitis, and the like. Great care should be exercised in handling it; it is very dangerous in the nose, eyes or on wounds. Its solutions should be prepared fresh as wanted.

Abrotanol is a chocolate-coated pastille containing extract of artemisia abrotanum and menthol and used as a stomachic and intestinal astringent.

Acerdol.—A trade name for *calcium permanganate.*

Acestoria.—Described as a 1 per cent. solution of cocaine in a volatile oil, containing some nitroglycerin and hyoscyamine. It is employed in dentistry as a local anesthetic.

Acetal (*diethyl-acetal; diethyl-aldehyde; ethylidene-diethyl ether*), $CH_3.CH:(OC_2H_5)_2$.—Occurs as a colorless, volatile liquid of the specific gravity 0.831 at 20° C., of pleasant odor, and agreeable after-taste. It dissolves in about 20

parts of water and 25 of chloroform, and is miscible in all proportions with alcohol or ether. It is used as a hypnotic in doses of 2 to 3 fluid drams.

Acetamido-ethyl-salicylic Acid.—A synonym of *benzacetine.*

Acetmethylanilid is the chemical designation of *exalgin.*

Acetocaustin.—A 50 per cent. solution of trichloracetic acid, used as a caustic on warts, corns, etc.

Acetoform is a brand name for *acetone chloroform,* a product better known as *chloretone;* see this title.

Acetone Alcohol is a trade name given to a brand of *methyl alcohol.*

Acetone Chloroform is *chloretone;* in saturated aqueous solution, *aneson* or *anesin.*

Acetone-collodion is the same as *filmogen* which see.

Acetonal is a 10 per cent. solution of *aluminium and sodium acetate,* obtained by dissolving 82 parts of anhydrous sodium acetate in 4,050 parts of solution of aluminium acetate (Ph. G.). It is used as an antiseptic.

Acetone-salicylic Acid Ether.—More generally known by its trade name of *salacetol.*

Acetophenone.—The chemical name of *hypnone.*

Acetopyrin is better known as *acopyrin,* which see.

Acetotoluid, ortho-, also designated as *acetortho-amidotoluol* or *orthotolyl-acetamide,* $C_9H_{11}NO$, occurs as colorless crystals which are freely soluble in alcohol or ether and sparingly soluble in water. It is antipyretic in action; dose, 3 to 8 grains.

Acetozone ($C_6H_5CO.O.O.COCH_3$), formerly known as *benzozone,* and chemically definable as benzoyl-acetyl peroxide, was discovered by Profs. P. C. Freer and F. G. Novy, of the University of Michigan. In the pure state it dissolves in 1,000 to 10,000 parts of water, 20 of oil, is slightly soluble in alcohol, fairly so in ether or chloroform, but slowly decomposing in all these solvents excepting petroleum oil; it is decomposed

by contact with alkalies and organic matter of all kinds. It is marketed only as a 50 per cent. mixture with an inert absorbent powder, which occurs as a light, cream-colored powder of peculiar odor and pungent taste. In the presence of water it gives off H_2O_2 by hydrolysis. Acetozone is a germicide that has been used chiefly in typhoid fever, internally, though to some extent also in surgery and gynecology, externally. It is generally used in a solution of 30 grains to the half gallon, the insoluble portion being allowed to settle and the clear liquid decanted; and in this form it is given internally, 2 to 6 ounces every 4 hours. It is also used topically in 10 per cent. triturations with boric acid, talcum, etc.; and internally, freely diluted with milk sugar, in capsules, 3 to 5 grains 3 times a day. Its solutions should be kept in the refrigerator.

Acet-para-amido-salol, or *acet-para-amido-phenyl-salicylate* is *salophen.*

Acet-para-phenetidin and *acet-phenetin* are synonyms of *phenacetin.*

Acet-theocin-sodium is a double salt containing 65½ per cent. of theocin, introduced by Dr. J. Meinertz as a soluble form of theocin (dimethyl-xanthin). It occurs as a white powder soluble in about 22 parts of water yielding an alkaline solution from which theocin is precipitated by acids. It is a powerful diuretic. Dose, 3 to 5 grains 3 or 4 times daily, in solution, after meals.

Acetyl-paraethoxy-phenyl-urethane. — See *thermodin.*

Acetyl-paraoxyphenyl-urethane is marketed as *neurodin.*

Acetylphenylhydrazin, also known as *hydracetin and pyrodin,* $C_8H_{10}N_2O$, occurs as a white, crystalline powder, odorless and almost tasteless, readily soluble in alcohol or chloroform, melting at 128° C., and slightly soluble in cold water or ether. While possessed also of antipyretic and analgesic action, and hence used to some extent in rheumatism and febrile affections, acetylphenylhydrazin is now employed chiefly in

psoriasis, externally, in 10 per cent. ointments. It is rather toxic. The dose as an antipyretic is ½ to 3 grains a day; in sciatica and articular rheumatism, 3 to 5 grains daily.

Acetyl-salicyl-phenetidin is the chemical designation for *thermol.*

Acetyl-tannin is a synonym of *tannigen.*

Acid, Acetyl-methylene-disalicylic is known in the trade as *urasol.*

Acid, Acetylsalicylic is better known as *aspirin.*

Acid, Acrolein-sulphurous.—See *solvosal.*

Acid, Agaric, Agaricic, or Agaricinic is pure *agaricin.*

Acid, Alpha-toluic (and Alpha-toluylic) are synonyms of *phenyl-acetic acid.*

Acid, Anilinsulphonic is better known as *sulphanilic acid.* See this.

Acid, Aseptic or Aseptinic, is described as a solution of boric acid and salicylic acid in water.

Acid, Beta-Phenylacrylic.—See *acid, cinnamic.*

Acid, Cacodylic, or *dimethylarsenic acid,* $(CH_3)_2AsO.OH$, is an organic compound of arsenic brought to the notice of the medical profession by Prof. A. Gautier in 1897, on account of its relative non-toxicity in spite of its high content in arsenic (54 per cent.). It forms white, odorless crystals, that are soluble in water or alcohol. It has been used in psoriasis, diabetes, leucocythemia, and Basedow's disease, in doses of ½ to 1 grain 3 or 4 times a day in mixture flavored with syrup of orange, and peppermint oil. Latterly cacodylic acid has been largely superseded by its sodium salt. Its iron, guaiacol, mercury, and quinine salts are also in vogue for special indications. It imparts a garlicky odor to the breath and perspiration. Some authors explain the relative non-toxicity of cacodylic acid on the score that only 2 or 3 per cent. of it is absorbed, the remainder being eliminated unchanged with the urine.

Acid, Camphoric, $C_{10}H_{16}O_4$, is obtained from camphor by oxidation with nitric acid. It occurs as colorless, odorless crystals of feebly acid taste,

slightly soluble in water but freely soluble in alcohol, ether or fatty oils. While used to some extent externally as an antiseptic and astringent, its chief employment is in night-sweats of phthisis. Dose, 10 to 30 grains, maximum dose 1 dram daily. Externally it is applied in 2 to 6 per cent. hydro-alcoholic solutions.

Acid, Cathartic, is in reality a mixture of the calcium, magnesium and potassium salts of cathartinic acid as they exist in senna leaves. It occurs as brownish-black granules or scales, soluble in water. It is used instead of senna chiefly in children. Dose for a child, 1½ to 3 grains; adults take 2 to 3 times as much.

Acid, Carbazotic, is *picric acid.*

Acid, Cinnamic (*cinnamylic or beta-phenylacrylic*), $C_9H_8O_2$, is prepared synthetically or obtained from storax, balsam of tolu or cinnamon oil. It forms white or yellowish leaflets, soluble in alcohol and fatty oils. It was introduced some years ago by Landerer as a remedy for phthisis and lupus, to be used intravenously or by parenchymatous injection in 5 per cent. oily emulsion containing 0.7 per cent. of sodium chloride, of which 2 to 15 minims were injected two or three times a week. Latterly it has been practically superseded by its sodium salt, which is neutral and freely soluble. Hoff a few years ago recommended it internally in phthisis, combined with arsenous acid and opium extract, in doses of 1/20 to ⅛ grain thrice daily.

Acid, Cinnamyl-cacodylic is used like the cacodylates, but especially in tuberculosis. No definite statements regarding the exact proportions of its constituents have thus far been published.

Acid, Diiodosalicylic, has the composition $C_6H_2I_2(OH)COOH$, and occurs as yellowish crystals that are soluble in alcohol or ether. It has been employed to a very limited extent as an antipyretic, analgesic and antiseptic, chiefly in rheumatism and gout. The dose is 8 to 20 grains.

Acid, Ellagic is the chemical equivalent of *gallogen.*

Acid, Glycerinophosphoric, $C_3H_5(OH)_2O.H_2PO_3$, is a colorless liquid of the specific gravity 1.125. It was introduced as a directly assimilable nerve tonic, but is now used only in the form of its salts—calcium, iron, potassium, quinine, sodium, strychnine, etc.

Acid, Glycocholic, $C_{26}H_{43}NO_6$, is the principal constituent of ox gall, used therapeutically in the form of its sodium salt, which see.

Acid, Iodic, HIO_3, is derived from iodine by oxidation with nitric acid, and appears as a white crystalline powder, readily soluble in water but only slightly soluble in alcohol, ether or glycerin. It is employed externally as a caustic and astringent, and internally as a substitute for potassium iodide and as a hemostatic and antiemetic in gastric hemorrhage; also used as an oxidizer and a reagent for morphine. Dose, 1 to 3 grains, well diluted, thrice daily. It is quite poisonous.

Acid, Laricinic is pure *agaricin*.

Acid, Methylene-di-salicylic is marketed under the name of *formosal*.

Acid, Methylene-hippuric. See *hippol*.

Acid, Naphthylamine-sulphonic (*naphthionic acid*), $C_{10}H_6.NH_2.SO_3H$, was recommended by Prof. Riegler in iodism, in nitrite poisoning, and in bladder trouble caused by strong alkalinity of the urine. It occurs as a white powder sparingly soluble in water. Dose in iodism, 7½ grains half hourly up to 45 grains; in bladder disease, the same quantity in wafers three or four times a day, associated with irrigation of warm 1:1,000 solution.

Acid, Osmic, known also as *osmium tetroxide* and *perosmic acid*, OsO_4, is prepared by heating finely powdered osmium in oxygen. It occurs in yellow, deliquescent needles; odor pungent and suffocating; and the vapor is strongly irritant to the air passages. Soluble in water; decomposed by alcohol and ether. Antineuralgic, discutient, antiepileptic. Used internally, in muscular rheumatism and neuralgia; and externally, for the removal of tumors. Employed in microscopy as a stain. Dose: 1/60 grain 3 times a day. Injection,

1/20 to ⅛ grain daily in 1 per cent. solution. Incompatible with organic substances; phosphorus; ferrous sulphate; iodides.

Acid, Oxynaphthoic (*Alpha*), also known as *naphtholcarbonic acid*, $C_{10}H_6.OH.COOH$, appears as white crystals that are soluble in alcohol and oils. It is used as an intestinal disinfectant in doses of 1 to 3 grains, and as an antiparasitic externally in 10 per cent. ointments. It is rarely prescribed at the present time.

Acid, Oxynaphthyl-ortho-oxytoluylic is the chemical name of the article marketed as *epicarin*.

Acid, Para-amido-benzol-sulphonic is commonly known as *sulphanilic acid* which see.

Acid, Para-anilin-sulphonic.—See *sulphanilic acid*.

Acid, Para-amidobenzoic Ethyl Ester, is a synonym of *anesthesin*.

Acid, Pepitzahoic is synonymous with *perezol* which see.

Acid, Perosmic, is a synonym of *osmic acid*.

Acid, Phenylacetic (*alpha-toluic or alpha-toluylic acid*), $C_6H_5CH_2.COOH$, was introduced as an intestinal antiseptic and antitubercular agent, but is very little heard of now-a-days. It forms white leaflets, soluble in alcohol and ether. Dose, 10 to 15 drops of a 1 in 6 hydro-alcoholic solution three times daily.

Acid, Salolorthophosphinic is the chemical name of *solvosal*.

Acid, Sulphanilic (*para-anilin-sulphonic* or *para-amido-benzol-sulphonic acid*), $NH_2C_6H_4SO_3 + 2H_2O$, is obtained by heating anilin with fuming sulphuric acid, and appears as white, efflorescent crystals slightly soluble in water but freely so in alcohol. It is used internally in coryza, catarrhal laryngitis, etc. Dose, 10 to 20 grains once or twice daily, in solution with sodium bicarbonate.

Acid, Trichloracetic, CCl_3COOH, is obtained from glacial acetic acid by the action of chlorine and sunlight, or by the oxidation of chloral. It occurs as very deliquescent crystals of a pungent odor and freely soluble in water or alcohol. It is used chiefly as a caustic, pure or in 50 per cent.

solution, in nevi, warts and nose and throat lesions; it is also employed as an astringent and styptic in 1 to 3 per cent. solutions (in gleet, etc.). It is a sensitive test for albumin in urine, used in substance or 33⅓ per cent. solution. Strong solutions should be dispensed only in glass-stoppered bottles.

Acid, Trinitrophenic is *picric acid.*

Acidol is a trade name for *betaine hydrochlorate* (lycin), $C_5H_{11}NO_2.HCl$. The drug occurs as white crystals, of fruit-acid taste, and readily soluble in water. It contains 23.8 per cent. of hydrochloric acid, and is employed as a substitute for the latter as a digestive. Dose, 7½ to 15 grains, well diluted (it is slightly caustic in undiluted form). Marketed also as 7½-grain pastilles.

Acoin (*di-para-anisyl-monophenetyl-guanidine hydrochlorate*) is one of the newer local anesthetics. It appears as a white, odorless, very bitter powder, soluble in 17 parts of water while dissolving freely in alcohol. It is very sensitive to alkalies, so that special precautions are necessary in preparing solutions of it, and these are readily affected by light. The product has hence not met with much favor. It has been recommended for Schleich's infiltration anesthesia in 1/10 per cent. solution containing 0.8 per cent. of sodium chloride; and Darier uses it in 1 per cent. solution to render subconjunctival injections painless, 1 to 3 drops being added to the medicated solution to be injected (mercury cyanide, etc.). It is now used mostly in conjunction with cocaine on the eyes.

Aconitine is perhaps no longer a new remedy, but so much confusion and lack of definite information regarding it exists in the medical and pharmaceutical professions, that a brief reference to it here appears imperative. There are two distinct modifications of "aconitine" on the market, differing widely in chemical constitution and still more so in physiological activity and toxicity. *Amorphous* aconitine, the kind supplied by wholesale druggists on unspecified orders for "aconitine," is a *mixture* of the various

amorphous bases of aconite, and is only about 1/15 as active as crystalline aconitine. Its dose is 1/60 to 1/15 grain; externally it is used in ½ to 2 per cent ointments or solutions. The other form of aconitine is the *crystalline*, a highly potent and poisonous definite alkaloid from aconite, about 15 times as powerful physiologically as amorphous aconitine. Crystalline aconitine is given in doses of 1/600 to 1/200 grain; it is rarely prescribed in ointments, oleates, or solutions. It is obvious that the use of amorphous aconitine when the crystalline modification is intended by the prescriber will lead to disappointment, while the dispensing of the crystalline when the amorphous variety is meant is fraught with the most serious danger, and may be attended by disastrous results. Hence the necessity of carefully discriminating. The antidotes are tannic acid (3 grains every half hour), atropine and stimulants, emetics hypodermically; and artificial respiration is generally resorted to.

Acopyrin (*acetopyrin* or *antipyrin acetyl-salicylate*) is a sort of combination of aspirin and antipyrin. It forms a white powder of a faint acetic odor, readily soluble in alcohol or chloroform, but very slightly soluble in water; it possesses the reactions of antipyrin and gives a red coloration with ferric chloride. Acetopyrin, as appears from its composition, is an antipyretic, antineuralgic, and antirheumatic, its chief use being in the last-named capacity. It is advertised as free from the untoward effects of the salicylates and of antipyrin. The dose is 8 to 15 grains singly, and 45 to 90 grains a day, best given in cachets.

Actol is the name under which *silver lactate* was introduced a few years ago but which has since been abandoned, as far as this market is concerned, in favor of the plain chemical designation, under which it will be referred to in these columns.

Adhæsivum is a thick, flesh-colored, perfumed liquid, stated to consist of zinc oxide, collodion and carmine. When applied to wounds it quickly dries to an elastic coating which is not removed

by washing in the ordinary way with soap and water.

Adhæsol is a solution of copal, benzoin, tolu balsam, oil of thyme, and alpha-naphthol in ether, recommended as an antiseptic paint in treating diphtheritic sore-throat, tuberculous ulcers, etc.

Adipatum is an ointment base consisting, according to reports, of lanolin, petrolatum, paraffin and water.

Adnephrin.—See under *adrenalin.*

Adonidin is a glucoside obtained from adonis vernalis. It is an amorphous, light-brown, extremely hygroscopic powder of intensely bitter taste; soluble in water or alcohol, insoluble in ether or chloroform. It is employed therapeutically as a cardiac tonic and mild diuretic, especially in mitral and aortic regurgitation. It is used also in nicotine poisoning and chronic diffuse nephritis. Dose, 1/16 to ¼ grain four times daily, as tablet-triturate or in solution with a little chloroform and ammonium carbonate (Stern); maximum dose ½ grain. Its antidotes are the same as those of digitalin.

Adonis Æstivalis tincture was brought forward as a harmless antifat. The dose is 10 to 20 drops three times daily, usually in lithia water. It acts also as a cardiac tonic and diuretic. Little has been heard of it during the past few years.

Adorin is a foot powder containing paraformaldehyde as its active ingredient. See caution under *formaldehyde.*

Adrenalin is believed to be the active principle of the suprarenal gland or capsule. It was first isolated by Dr. J. Takamine in 1901. It occurs as tiny white crystals that are difficultly soluble in water and very prone to oxidize, in view of which the article is marketed as "solution adrenalin chloride"—a 1 in 1,000 solution of its hydrochlorate in normal salt solution, to which ½ per cent. of chloretone is added as a preservative. Adrenalin has been much written on in medical literature, and it is employed in a wide range of diseases; its fundamental physiologic action is that of a vaso-constrictor. Its chief uses are to

render minor surgical operations on the eye, nose, throat, etc., bloodless; in hay fever or coryza, and in internal hemorrhages (gastric, intestinal, cystic, etc.). It is applied externally in 1 in 1,000 (the strength marketed) to 1 in 10,000 solutions, and it is administered internally or hypodermically in doses of 5 to 30 minims every two to four hours. It has also been recommended as a cardiac stimulant, especially in chloroform syncope, and in conjunction with cocaine injections to enhance their action and diminish their toxicity. Its dilutions are generally prepared with normal salt solution (0.6 per cent.), not with plain water. (A 1 in 1,000 solution of the active principle of the suprarenal capsule is also marketed under various other names —*adnephrin* (formerly called *adrenol*), *hemostatin*, *suprarenalin*, etc.]

Adrenamine is a European trade name for the active principle of the suprarenal capsule.

Adrin is the trade name applied by a Philadelphia firm to what is claimed to be the active principle of the suprarenal capsule. See under *adrenalin*.

Æsco-Quinine, also known as "neutral quinine æsculinate, Flügge," is described as a compound of quinine with the glucosides of horse chestnut; a yellowish, amorphous, bitter powder containing 50 per cent. of quinine; insoluble in water but rendered soluble by acids. It is marketed in 0.1 gram sugar-coated tablets, one of which given three to five times daily constitutes the usual dose. It is used in coryza; colds in the respiratory tract; also as a nerve tonic.

Æscorcin.—See *escorcin*.

Æthacol is identical with the article better known as *guæthol*, which see.

Æthol is a trade name for *cetyl alcohol*. (See *alcohol, cetyl*.)

Ætho-Methyl is a mixture of ethyl and methyl chlorides used as a local anesthetic by spraying.

Æthoxycaffeine.—See *ethoxycaffeine*.

Aftanin is a brownish liquid said to consist of a vegetable infusion containing 5 per cent. of

glycerin and 1½ per cent. of formaldehyde. It is used in foot-and-mouth disease of cattle. See caution under *formaldehyde*.

Agaricin, in the pure state identical with *agaricic*, *agaricinic*, or *laricic acid*, and also known as *laricin*, is the active constituent of white agaric (polyporus officinalis). It occurs as a white or yellowish powder almost insoluble in water but soluble in alcohol or alkali solutions. It is recommended as a remedy for the night-sweats of phthisical subjects. Dose, ⅙ to 1 grain; maximum dose, 1½ grains.

Agathin (*salicyl-alpha-methyl-phenyl-hydrazone*) results from the interaction of molecular equivalents of asymmetrical methylphenylhydrazin and salicylic aldehyde. It forms yellowish or whitish crystals that are soluble in alcohol or ether but insoluble in water. It was introduced some ten years ago as an antineuralgic and antirheumatic. Dose, 2 to 8 grains two or three times daily. It should be kept in the dark.

Agniadin is a glucoside recently introduced as a remedy for intermittent fever. It is believed to be identical with *plumiarid*. Dose, 2 to 4 grains.

Agopyrin is a specialty marketed in tablets containing 0.025 gram each of cinchonine sulphate and ammonium chloride, and 0.25 gram of salicin.

Agurcarina is a trade name for *saccharin*.

Agurin is the terse name for *theobromine-sodium and sodium acetate*, $C_7H_7N_4O_2Na+NaC_2H_3O_2$. It occurs as a white, hygroscopic alkaline powder, readily soluble in water and decomposed by acids. It is employed as a pure diuretic said to be without action upon the heart—chiefly in dropsy of cardiac origin. Dose, 5 to 15 grains three or four times a day, usually in peppermint water. It must be kept securely stoppered and in a dry place, and its solutions freshly prepared. Rubbed with chloral hydrate, carbolic acid or piperazin, agurin yields a mass.

Aiodin (*aiodon*) is an odorless and tasteless dry preparation of the thyroid gland, 1 part of which represents 10 parts of the fresh gland and contains 0.4 per cent. of iodine. It is marketed

also in 0.1, 0.3, and 0.5 gram pastils, and is used in myxedema, cretinism, obstinate psoriasis, etc.

Airoform and Airogen are synonyms of *airol*.

Airol, formerly marketed also as *airoform* and *airogen*, is *bismuth oxyiodogallate*. It results from the action of hydriodic acid upon bismuth subgallate or of gallic acid upon freshly-precipitated bismuth oxyiodide. It is a grayish-green, very bulky, impalpable, odorless, insoluble powder, containing 20 per cent. of iodine. Its principal employment is as an an odorless substitute for iodoform in wounds, ulcers, abscesses, burns, etc., but it is also used in various ocular, naso-pharyngeal, gynecological, and venereal diseases. It has a strong drying action which is wanting in iodoform. It is prescribed pure or mixed with talcum, boric acid, and the like; also in 5 to 20 per cent. ointments, pastes, or suspensions (in equal parts of glycerin and water). Airol should be kept in a dry place and away from light. It is incompatible with calomel, tending to form red mercuric iodide therewith.

Ajacol is described under *guæthol*, with which it is identical.

Akaralgia is a granular effervescent salt made according to the formula of Dr. Rachford, of Cincinnati, O. (dried sodium sulphate 30 grains, sodium salicylate from wintergreen oil, 10 grains, magnesium sulphate 50 grains, lithium benzoate 5 grains, tincture of nux vomica 3 drops, and distilled water to make 4 ounces.) It is prescribed especially in migraine, particularly the chronic form.

Alapurin is a pure grade of wool fat, of a light color and non-pronounced odor.

Albacids are substituted albumins containing bromine, chlorine, and iodine respectively. See *bromalbacid*, *chloralbacid* and *iodalbacid*.

Albargin is a compound of gelatose with silver nitrate, occurring as a voluminous, yellowish powder containing 15 per cent. of silver and readily soluble in water. Its chief employment is in gonorrhea, though it is also used in infectious eye diseases, bladder trouble, and membranous colitis; usually in 0.1 to 0.2 per cent.

solutions, though sometimes a 2 per cent. solution is prescribed, or 10 to 20 per cent. glycerin solutions. It is also marketed in 3 grain tablets. Distilled water should preferably be used in making solutions, and these should be dispensed in dark-amber or black bottles. If ordinary water is used, the water should gradually be added to the albargin with gentle shaking, and not the reverse lest the solution become turbid.

Alboferrin is an iron-albumin preparation occurring as a light-brown, almost tasteless and odorless powder, soluble in water and containing 0.68 per cent. of iron, 0.324 per cent. of phosphorus, and 90.14 per cent. of albumin. It is intended as a hematinic.

Albopixol is a superfatted white tar soap intended as a dermic.

Alcarnose is a readily soluble nutrient said to contain in a predigested form all the substances necessary for the nourishment and invigoration of the body. It is a light-brown powder of pleasant odor and taste. Dose, 1 to 3 tablespoonfuls, in hot milk or soup.

Alcho is the name recently given to *aluminium* carbonate.

Alcohol, Amylic, Tertiary.—See *amylene hydrate.*

Alcohol, Cetylic, also known by the trade name of *æthol* and the chemical designations normal primary *hexadecyl alcohol* and *palmityl alcohol,* though not a new product has only in recent years come to the fore as a skin emollient in chaps, prurigo, and weeping eczema. It forms white crystals soluble in alcohol and ether. It is generally used mixed with boric acid in proportions varying from equal parts to 1 in 5. It is derived from spermaceti by saponification with potash.

Alcohol-silver Ointment consists of 0.5 per cent. of collargol, 70 per cent. of alcohol, soda soap, wax and a little glycerin, and is recommended by Löwe as the best form for using colloidal silver (collargol), because the hyperemia caused by the alcohol considerably increases the absorbing power of the skin and thus enhances and hastens

the action of the drug. It is used in infectious inflammations, old ulcers of the leg, severe burns, chronic eczema, etc.

Aldesar.—See under *nebulates*

Aldol, $CH_3CH(OH)CH_2CHO$, is a thick, odorless liquid obtained by permitting diluted hydrochloric acid to act upon ethyl aldehyde for several days, then neutralizing with sodium carbonate, shaking with ether and evaporating the latter. It readily polymerizes, is miscible with two parts of water as well as with alcohol and ether, and, according to Dr. Camurri, is a serviceable hypnotic.

Aldthyform is defined as a 25 per cent. solution of thymol with 10 per cent. of formaldehyde used as a disinfectant. See caution under *formaldehyde*.

Aleptone is the name given to iron-manganese tablets intended as a cheap substitute for solution of iron and manganese peptonate. *P-aleptone* contains collodial iron and manganese peptone, and *s-aleptone* consists of colloidal iron and manganese saccharate. Each tablet contains 0.05 gram of iron and 0.008 gram of manganese.

Aleuronat is a by-product in the manufacture of wheat starch, introduced as a dietetic. It is marketed also as soup aleuronat, a tablespoonful of which in a cup of water yields a soup; and as tannin-aleuronat, mildly astringent and hence employed for cholera infantum and chronic intestinal catarrh.

Aleuronat Flour is a vegetble albumin used in the preparation of diabetic bread, and in surgery, owing to its intense chemotactic action upon leucocytes, to bring about union of severed surfaces. It occurs as a yellowish-white, tasteless powder.

Alexine is a synonym of *tuberculocidin* (Klebs).

Algadine is an inorganic poultice "composed of silica, magnesia, alumina, and ferrous carbonate, together with eucalyptol, menthol and thymol in a menstruum of solution of boroglyceride."

Alginoids are metallic salts of alginic acid, $C_{76}H_{80}N_2O_{22}$, discovered by Stanford a few years ago. Only the *iron* alginoid or alginate has been used therapeutically. In the dry state this is a

brown, tasteless, insoluble powder, containing about 10 per cent. of iron, and recommended by the introducer as an easily assimilable and non-irritating hematinic in doses of 2 to 10 grains.

Alkasal is the name applied variously to *aluminium and potassium salicylate* and to *aluminium and potassium acetate*, both used as antiseptics and astringents.

Alka-thyptol is an alkaline antiseptic solution containing oils of eucalyptus and wintergreen, thymol, menthol, borax, sodium benzoate and glycerin. It is used particularly in nose and throat affections, diluted with one to several parts of water.

Allyl Sulphocarbamid is a synonym of thiosinamin.

Almatein is a compound of hematoxylin and formaldehyde, advertised as an antiseptic. See caution under *formaldehyde*.

Alpha-Eunol is a compound of alpha-naphtol and eucalyptol heralded as an antiseptic. Further data are wanting.

Alpha-Guaiacol is synthetic crystalline guaiacol.

Alpha-Naphtol Salicylate, or Alpha-Naphtol Salicylic Acid Ester, is better known as *alphol*, which see.

Alphol (*alpha-naphtol salicylate*, or *alpha-naphtol salicylic acid ester*), $C_6H_4(OH)COO.C_{10}H_7$, results from heating alpha-naphtol-sodium and sodium salicylate with phosphorus oxychloride. It is a reddish-white crystalline powder, soluble in alcohol, ether, and fatty oils. It is employed as an internal antiseptic in gonorrheal cystitis, summer diarrheas, typhoid fever, etc., and in rheumatism. Dose, 1 to 15 grains several times daily. It is prone to darken with age and exposure.

Alphozone is the trade name applied to *succinic peroxide*, $(COOH.CH_2.CH_2.CO)_2O_2$. The article occurs as a white, fluffy powder, having a characteristic taste that is described as not unpleasant in dilutions, soluble on agitation in 30 parts of water, stable, and non-explosive. It is employed as a germicide and antiseptic; external-

ly on wounds or ulcers, in tonsilitis, leucorrhea, etc.; internally in typhoid fever, infectious diarrhea, abnormal fermentation and like intestinal disturbances.

Alsol is a trade name for *aluminium acetotartrate.*

Alumformasal is the aluminium salt of methylene-disalicylic acid (formasal), used chiefly as an astringent dusting powder in naso-pharyngeal catarrh and ozena. See caution under *formaldehyde.*

Aluminium Acetotartrate, also known as *alsol,* is an astringent and disinfectant employed in ½ to 2 per cent. solutions as a nasal douche in affections of the respiratory tract, in 1 to 3 per cent. solutions as a substitute for solution of aluminium acetate, in concentrated solution as a lotion in frost-bite and balanitis, and as a snuff with boric acid in ozena. It occurs as colorless or yellowish crystals, freely but exceedingly slowly soluble in water, and insoluble in alcohol and ether.

Aluminium Boroformate, $Al_2O_3.BO_3H_3.H_2CO_2 + 5H_2O$, may be obtained by dissolving alumina in a solution of 2 parts of formic acid and 1 part of boric acid, evaporating and crystallizing. Used as a disinfectant. There is risk in formates it must be noted, if used medicinally, as formic acid is probably the ultimate cause of blindness and death from wood alcohol, being formed from that in the system. See caution under *formaldehyde.*

Aluminium Caseinate is a product obtained by adding solution of aluminium acetate to milk freed from albumin and sterilized. It forms a yellowish, tasteless, insoluble powder, and is employed as an intestinal astringent. Dose, 3 to 5 grains.

Aluminium Carbonate, $Al_2(CO_3)_3$, it was hitherto impossible to prepare in a way that it would not immediately become decomposed into aluminium hydrate and carbon dioxide. Gawalowski has now succeeded in making a stable carbonate. This occurs as a chalky, white, readily pulverizable, tasteless substance, and has been recommended as a mild styptic, astringent, and antidiarrheal, in hematemesis, excessive perspiration, skin dis-

eases, etc., analogous to aluminium acetate, burnt alum, etc. Dose, 5 to 15 grains.

Aluminium Gallate is described under *gallal*.

Aluminium Salicylate, $(C_6H_4.OH.COO)_6.Al_2+3H_2O$, also known by the trade name *salumin*, occurs as a reddish-white powder, insoluble in water or alcohol but soluble in alkalies and ammonia. It is prescribed as a dusting-powder in nasal and laryngeal catarrhs, particularly in ozena.

Alumnol (*aluminium beta-naphtol sulphonate*), $[C_{10}H_6.OH.(SO_3)_2]_3Al_2$, is obtained by the interaction of barium beta-naphtol disulphonate and aluminium sulphate; a white or pinkish powder, readily soluble in water or glycerin but sparingly soluble in alcohol. Its action is that of an astringent antiseptic, and it is used chiefly in gonorrhea (½ to 2 per cent. solutions), leucorrhea (in 1 to 5 per cent. solutions), as a dusting-powder in the nursery (1:4 to 1:9 of talcum or starch), and in abscesses (10 per cent. solution). It has also been employed in nose-bleeding, certain inflammatory skin diseases, purulent wounds, etc. Its aqueous solutions are incompatible with alkaline liquids and solutions of ammoniacal compounds.

Alypin is a new substitute for cocaine hydrochloride as a local anesthetic. According to Drs. E. Impens and F. Hofmann, it is equally active but less toxic than cocaine, causes no mydriasis nor vaso-constriction (on the contrary, vaso-dilatation), and its solutions bear boiling for from five to ten minutes without decomposition. Chemically it is defined as *benzoyltetramethyldiaminethyldimethylcarbinol hydrochloride*. It is a crystalline substance, melting at 169°C., and freely soluble in water yielding neutral solutions that are quite stable when of more than 2 per cent. strength; weaker solutions get mouldy in time. Alypin is employed mostly in 2 to 4 per cent. solution, just like cocaine hydrochloride.

Amidopyrin is the same as *pyramidon*.

Aminoform is one of the many trade names for *hexamethylenetetramine* (urotropin, formin, etc.).

Aminol is a disinfectant and deodorizing liquid said to consist of calcium hydrate, sodium chloride, and trimethylamine.

Amiotone is an alterative dietetic prepared from sea weeds rich in bromine; a fine, yellowish powder, partly soluble in water.

Ammonio-formaldehyde is one of the many synonyms of *hexamethylenetetramine.*

Ammonium Embelate, $NH_4C_9H_{13}O_2$, is the ammonium salt of the acid contained in the fruit of embelia, ribes. It is a grayish-violet powder, soluble in diluted alcohol. It is used as a teniafuge, chiefly in children, in the dose of 3 grains with syrup or honey, preceeded for three days by a milk diet and followed by a dose of castor oil.

Ammonium Fluoride was recommended a few years ago by Dr. Lucas in enlargement of the spleen, and later also in goiter and flatulent dyspepsia. It is given in doses of ¼ to ¾ grain after meals, either in pills, or (more frequently) well diluted in solution (10 grains in 6 oz.; a teaspoonful to a tablespoonful for a dose). Only the purest, medicinal or arsenic-free quality should be dispensed on prescriptions.

Ammonium Supholeate is what a Bremen pharmacist calls his analogue of *ichthyol.*

Ammonium Sulphobituminolate.—See *bituminol.*

Ammonol is a composite antipyretic and analgesic, consisting, according to reports, essentially of acetanilid, sodium bicarbonate, ammonium carbonate, and traces of mentanil yellow. It forms a white powder, only partly soluble in cold water or alcohol. When rubbed dry with resorcin, thymol, carbolic acid, or chloral hydrate, it yields a mass or a liquid, according to the proportions used. Dose, 5 to 15 grains.

Ammo-phenin is an "ammoniated phenylacetamide"—a mixture analogous to ammonol, antikamnia, etc. Dose, 5 to 10 grains.

Amsco Salts is "an effervescent combination of lithium, sodium sulphate and phosphate, with potassium carbonate." It is used as a laxative and antacid, in biliousness, constipation, heartburn, rheumatism, etc. Dose, a teaspoonful.

Amygdophenin (*ethyl-amygdophenin, phenetidin mandelate*) occurs as a grayish-white powder or leaflets, easily soluble in alcohol, sparingly so in water. It was introduced as an analgesic and antirheumatic, claimed to be free from by-effects; but it has latterly not been reported on, and is not now obtainable in this market. Dose, 15 grains.

Amyl Salicylate was recently brought to the fore as a remedy in acute and subacute rheumatism by a French physician, Dr. M. B. Lyonnet, under the name amylenol. It is a faintly yellowish liquid of salol-like odor; soluble in alcohol, ether, or chloroform, but insoluble in water. Externally 30 to 45 minims are painted on the affected joint and this dressed with impervious material so as to prevent too rapid evaporation; internally 30 minims are given in the course of a day, in capsules generally. According to Hénon, it also acts well applied externally in hepatic colic.

Amylarin is *iso-amyl-trimethylammonium chloride*, which according to C. Jacoby, is a toxic substance combining the action of curare and muscarine. Further data are wanting.

Amylene Hydrate, chemically known also as *tertiary amyl alcohol* and *dimethyl-ethyl-carbinol*, is a light, colorless, oily, hygroscopic liquid, of ethereo-camphoraceous taste and odor, soluble in about 8 parts of water and miscible with alcohol, ether, or chloroform in all proportions. It was introduced by Prof. von Mering as a hypnotic and a nerve sedative, half as powerful as chloral hydrate and claimed to be less dangerous. Dose, 30 to 90 minims, usually prescribed in aqueous solution with extract of liquorice.

Amylenol is a French name applied to *amyl salicylate*.

Amylocarbol is a disinfectant fluid reported to be a mixture of crude carbolic acid, green soap, amyl alcohol, and water.

Amyloform is a condensation product of starch and formaldehyde, occurring as a white, odorless, insoluble powder. It is recommended as a surgi-

cal antiseptic, pure or in mixtures with boric acid, etc., just like iodoform. See caution under *formaldehyde.*

Amyloiodoform should not be confounded with amyloform. It is a blackish-blue combinations of starch, iodine, and formaldehyde. See caution under *formaldehyde.*

Amyrol is an alcohol obtained by E. Liotard from West Indian oil of sandalwood; an isomer of santalol, and a colorless liquid of the specific gravity 0.980. It is intended as a substitute for the oil, but no clinical data are as yet extant.

Anadol is a pulverulent antipyretic and analgesic of undivulged composition—probably analogous to the score of mixtures of acetanilid on the market under various names. Dose, 5 to 15 grains. Marketed also as 5-grain tablets.

Anaemin is an iron-pepsin saccharate used especially in anemia attended with dyspepsia.

Anaemorenin is a preparation of the suprarenal capsule, which is recommended by Dr. Möller as a dental anesthetic.

Anaemose Milk is a buttermilk preparation containing 0.15 per cent. of ferrous iodide without any aromatics or preservative, and intended as a milk food for the use of anemic patients.

Anaesthol or *anaestyle* or *anestile* is a solution of methyl chloride in ethyl chloride, recommended as a local anesthetic in tooth-extraction and for the relief of rheumatic and neuralgic pains. It should not be confounded with the following inhalation anesthetic recently introduced under the name "anæsthol."

Anæsthol is the outcome of efforts at improving general anesthesia on the basis of Schleich's principle (adapting the boiling point of the narcotics to the temperature of the body), and is the logical supersedant of Schleich's ether-chloroform-benzin mixtures first advocated about seven years ago. It is regarded by its introducer, Dr. Weidig, as a chemical combination or "molecular solution," and consists of 17 volumes of ethyl chloride, 35.89 of chloroform, and 47.1 of ether. It is a colorless liquid of agreeable odor, specific gravity 1.045, and boiling point 104° F. Anæsthol has been recommended as an agreeable and rela-

tively safe inhalation anesthetic, usually without untoward after-effect. It is generally administered by the "drop" method; and some physicians give a dose of morphine hypodermically about half an hour before beginning with the anesthetic, and this is said to enhance the action and reduce the quantity required for narcosis.

Analgen is better known on this market as *quinalgen* and will be described under the latter head.

Analgesine is one of the numerous synonyms of *antipyrin*.

Analgesine Caffeino-Citrate is *migrainin*.

Analgia is a combination similar to antikamnia and the like, used as an antipyretic and analgesic. Dose, 5 to 15 grains.

Analgine is an analgesic and antipyretic defined by its manufacturers as "acetyl-amidobenzol trimethyl-xanthine" (hence probably a mixture in which acetanilid and caffeine are the chief ingredients). Dose, 5 to 15 grains. Marketed also as tablets, plain and in various combinations.

Anaspalin is an ointment base stated to consist of a mixture of wool fat and petrolatum.

Anedemin is described as a combination of apocynum, strophanthus and squill, with sambucus, and is used as a diuretic in dropsies.

Anemonin or *pulsatilla camphor*, $C_{10}H_8O_4$, occurs as yellowish-white crystals, insoluble in water or cold alcohol, and employed as an antispasmodic and anodyne in asthma, whooping cough, orchitis, dysmenorrhea, etc. Dose, ¼ to 1 grain twice daily; maximum dose, 1½ grains.

Aneson or **Anesin** is a saturated aqueous solution of acetone chloroform or chloretone, which was introduced a few years ago as a local anesthetic for use in nasal, laryngeal, and minor surgical operations, but apparently withdrawn from the market since the appearance of chloretone crystals.

Anesthesin is chemically *para-amidobenzoic acid ethyl ester*, $C_6H_4.NH_2.COOC_2H_5$, a white, odorless, tasteless powder, sparingly soluble in water, but readily soluble in alcohol, ether, chloroform,

fats or oils. Prof. C. v. Noorden recommends it as a local anesthetic and sedative in gastric hyperesthia, ulcer or cancer of the stomach, and dysphagia; and it is also used locally in laryngeal tuberculosis, painful hemorrhoids, etc. It is applied pure or mixed with an inert powder, in ointment, alcoholic or ethereal solution, or emulsion, or as suppositories and bougies. Dose, 5 to 10 grains two or three times a day, on an empty stomach, or ⅓ to ⅔ grains more frequently (in laryngeal troubles). Anesthesin is marketed in a number of forms and combinations; and a fluid form of it has very recently been put forward as "anesthesin soluble."

Anesthesin Para-Phenolsulphonate is the chemical designation for *subcutin*, which see.

Anestile.—See *anaesthol.*

Angioneurosin is *nitroglycerin.*

Anilin Sulphate occurs in white crystals soluble in water and alcohol. It has been employed as a nervine in chorea and epilepsy, and as an analgesic and deodorant in carcinoma. Dose ¾ to 1½ grains, and up to 6 grains a day. It is quite poisonous.

Anilid Meta-arsenite.—See *atoxyl.*

Anilipyrin is an antiseptic and analgesic prepared by melting together 188 parts of antipyrin and 135 parts of acetanilid. It occurs as a white powder, readily soluble in water, and is employed chiefly in grip, articular rheumatism, and neuralgias. The dose is 5 to 10 grains which may be given three or four times daily. An *alpha-* and a *beta-* anilipyrin are distinguished.

Aniodol is a French disinfectant reported to consist of formaldehyde, glycerin, tincture of mustard, alcohol and water. See caution under *formaldehyde.*

Annidalin is a synonym of *aristol.*

Anodynicum is, according to Jungclaussen, a wool fat ointment containing acetanilid.

Anodynin is another synonym of *antipyrin.*

Anodynone is a trade name of *ethyl chloride.*

Anozol is described as powdered iodoform mixed with thymol. It is used like iodoform.

Antacetin is a trade designation for *calcium saccharate.*

Antemesin is the fanciful designation for capsules containing 1½ grains of anesthesin and hence used as an anodyne in gastric ulcer, nervous dyspepsia, etc.

Anthraglucorhamnin, Anthraglucorhein, Anthraglucosagradin, and Anthraglucosennin are glucosides isolated by Tschirch from frangula, rhubarb, cascara sagrada and senna respectively. They all occur as brown powders that are soluble in alcohol, and possess cathartic action; but dose statements are wanting.

Anthrarobin (*anthro-arobin, dioxyanthranol, leuco-alizarin*) is obtained from alizarin by reduction with zinc dust. It forms a yellowish granular powder, soluble in hot alcohol and in solutions of the alkalies, and was introduced as a substitute for chrysarobin in psoriasis, herpes and other skin diseases. It is generally prescribed in 10 to 20 per cent. ointments; sometimes in alcoholic solution.

Anthrasol is described as a purified and decolorized tar; a light-yellowish oil of tarry odor, soluble in about 20 parts of 90 per cent. alcohol, and miscible in all proportions with absolute alcohol, acetone, fatty oils, liquid paraffin, or vasogen. It is said to penetrate the skin readily and thus has a deep action, to have more marked antipruritic effect than ordinary tar, and to be less irritating. It is used in skin diseases, in place of common tar, in 1:5 to 1:15 ointments or solutions in absolute alcohol.

Anthro-arobin is a synonym of *anthrarobin*.

Antiarthrin is a condensation product of saligenin containing 50 per cent. of salicin. It occurs as a brown powder, soluble in alcohol and alkalies, and is employed chiefly as a remedy in gout. Dose, 6 to 10 grains a day, in powders or pills. Dispensing it with other chemicals has been cautioned against, on account of its slight content of hydrochloric acid.

Antiarin is a glucoside obtained from antiaris toxicaria, a plant growing in Dutch India and employed by the natives for poisoning arrows. According to Dr. Rumke, it is a heart tonic similar to strophanthin; it is very poisonous. Dose statements are wanting.

Antibacillare is a mixture of creosote, codeine, sodium arsenite, tolu balsam and glycerin extolled by Dr. Garofalo as a remedy in phthisis.

Antibacterin is stated to be a mixture composed of commercial aluminium sulphate and soot.

Antibakterian is, according to Aufrecht, a mixture of boric acid, solution of ferric chloride, and chloric ether. It is used in infectious diseases.

Anticancrin is a serum obtained from sheep treated with erysipelas cultures. It was recommended by Emmerich for use in cancer.

Anticeltin is mercury and urea in combination. It is employed in iritis and keratitis by subconjunctival injection in solutions of 1 in 2,000. While it is reported that this remedy is non-irritating, the claim is made that it is fully equal to corrosive sublimate in antiseptic power.

Antichlor Pills (not antichlorine) contain, according to Kahm, 0.05 gram each of ferrous sulphate, sodium carbonate, quinine sulphate, and extract nux vomica, with 0.002 gram of arsenous acid. They are used in anemia. Dose, 1 or 2 pills two or three times daily.

Antichlorin is reported to consist of glucose, basic bismuth formate, and sodium bicarbonate. It has been brought forward as a remedy for anemia. As to a risk in the use of formates see *formaldehyde*.

Antichlorose is stated to contain fluid hemoglobin, glycerin and sherry wine, with taste corrigents. It is also marketed as "antichlorose with guaiacol," which contains 1½ grains of potassium guaiacol sulphonate (thiocol) in a teaspoonful.

Anticholerin is a metabolic product of cholera bacilli, introduced by Klebs as a remedy in cholera; a brownish-yellow, thick fluid of peculiar odor.

Antichoren is a *peptonized mercuric chloroiodide* ($HgI_2+2HgCl_2$), resulting from the action of mercuric iodide and peptone upon mercuric chloride and occurring as a dark-brown, soft mass soluble in water. It is given in syphilis, internally as 1/6 grain pills or subcutaneously as 2 per cent. solution (15 minims per injection).

Antidiabetikum of Lindner is better known as *glycosolvol*, which see.

Antidiabetin is a French specialty for diabetics' use, consisting of mannite with saccharin mixed in three different proportions and designated as antidiabetin No. 70, No. 10, and No. 1 respectively.

Antidiphtherin is a name applied to various preparations used in diphtheria. Antidiphtherin *Klebs* is obtained from cultures of diphtheria bacilli in a fluid medium, and is applied with a brush to the affected parts. Antidiphtherin *Wittstein* is said to consist essentially of the resinous acids of olibanum, with salicylic acid, carbolic acid and menthol; it is a dry powder, employed by fumigation. Finally there is a third antidiphtherin, made in Berlin; a powder stated to consist of potassium chlorate and ferric chloride.

Antidol is a mixture of citric acid, caffeine, salicylic acid, and antipyrin, used as an antineuralgic and antipyretic. Dose, 15 grains.

Antidysentericum of Köhler is said to consist of logwood, pomegranate and simaruba barks. Used in dysentery.

Antidysentericum of Schwarz, also known as "Indian pills," is a remedy for dysentery, consisting, according to reports, of pelletierine, myrobalans, extract of pomegranate, extract of rose, and gum. Six to nine pills, acording to the number of stools, constitute the daily dose.

Antidyspepticum is a preparation used in seasickness, described as a mixture of "a tartaric double-salt with sodium bicarbonate, magnesia, ammonium chloride, and quinine."

Antifebrin is a trade name for *acetanilid*.

Antiflurein is a German specialty used in leucorrhea.

Antifungin is a fanciful name for *magnesium borate*.

Antigermin is a disinfectant said to be a compound of copper with a weak organic acid; an odorless, greenish-yellow, semi-solid mass, soluble in about 200 parts of hot water. According to Dr. Weisenberg, it strongly hinders decomposition and exhibits marked bactericidal power.

Antihemicranin is stated to be a mixture of caffeine, antipyrin, and sugar, given in doses of 10 to 30 grains chiefly in migraine.

Antiherpin is a herpes remedy consisting, according to the manufacturer, of liquid tar, oil of rape seed and Peru balsam.

Antikamnia is a well-known composite antipyretic and antineuralgic, said to consist of acetanilid, sodium bicarbonate, and a small quantity of caffeine; a white powder, of slightly pungent and bitter taste and alkaline reaction, difficultly soluble in water and incompletely soluble in alcohol. Dose, 5 to 15 grains. It is marketed also as tablets, plain and in various combinations.

Antikol was brought forward some years ago as an antipyretic and analgesic, but has latterly not been mentioned in the medical or pharmaceutical press. It was described as a mixture of acetanilid, sodium bicarbonate, and tartaric acid. Dose, 5 to 15 grains.

Antilupia is a combination of lupulin, acetanilid, caffeine and sodium bromide. It is prescribed as an antipyretic and analgesic. Dose, 5 to 15 grains. Marketed also as 5-grain tablets and in combinations as tablets.

Antimarin is a sea-sickness remedy, marketed in the form of tablets consisting essentially of 3 grains of anesthesin, and hence analogous to *antivom* pills.

Antimellin is what R. Börsch of Berlin calls a substance he has isolated from jambul fruit. It occurs as a light-yellow powder of sweetish-bitter taste, and enters into a very complex antidiabetic mixture the discoverer puts out under the same name.

Antimorphin is a preparation introduced by Dr. A. Fromme of Stellingen, Hamburg, as a remedy for chronic morphinism. According to the statements made in a circular issued by the manufacturers, it consists of a mixture of several bitter tinctures, quinine, and a number of wines. Prof. Fischer and E. Merck claim to have found in it from 1 to 2 per cent. of morphine, or at least of a base closely analogous to morphine, and the preparation has hence not been heard

about latterly. Another "antimorphin" was once on the market which, according to Dr. Heffelmann was a solution of sodium phosphate.

Antineon is a German gonorrhea remedy stated by the manufacturer to be an alcoholic extract of sarsaparilla, veronica, and portulacca.

Antinervin or *salbromalid* is a composite sedative and analgesic introduced by Radlauer, and composed of salicylic acid, ammonium bromide, and acetanilid. Dose, 5 to 10 grains.

Antinosin (*nosophen-sodium*) is the sodium salt of nosophen (tetraiodophenolphtalein), occuring as a blue, amorphous powder of a faint iodine odor; soluble in water. It is used as a surgical antiseptic, also as a disinfectant in 0.1 to 0.5 per cent. solution in nose and throat troubles, cystitis, etc. On exposure to the air, it is very prone to become decomposed into nosophen and sodium carbonate and become insoluble; hence it should be kept securely stoppered.

Antiparasitin is a 1 per cent. solution of dinitrocresol-potassium (antinonnin).

Antiphlogin is a trade name for *antipyrine*.

Antiphlogistine is a poultice said to consist of powdered kaolin, glycerin, boric acid, salicylic acid, ferric oxide, iodine, and the oils of peppermint, wintergreen and eucalyptus.

Antiphthisin, *Weber* is a purified paraffin oil intended especially for hypodermic injection.

Antiphthisin, *Klebs* is better known as *tuberculocidin*, which see.

Antiputrol is a brownish, viscid liquid of carbolic odor and soluble in water in any proportion. It is said to contain 65 to 70 per cent. of phenol and its homologues, and is used as an antiseptic.

Antipyonin is a fanciful name given to finely powdered "neutral tetraborate of sodium" obtained by melting together equal parts of boric acid and borax. It is employed by insufflation as an antiseptic in otorrhea, corneal and conjunctival inflammations, etc. (See also sodium tetraborate, neutral.)

Antipyreticum is a trade name for *antipyrin*.

Antipyreticum Compositum is a pulverulent mixture corresponding to *migrainin* but made by a competing firm in Berlin.

Antipyrin Acetylsalicylate is the chemical designation of *acetopyrin*.

Antipyrin Amygdalate is marketed as *tussol*, which see.

Antipyrin Carbolate was marketed as *phenopyrin* some years ago, but has apparently been withdrawn from the market.

Antipyrin-collodion is a 20 per cent. solution of antipyrin in collodion, recommended by Dr. Terson as a styptic for use on small wounds, either alone or with the addition of other medicaments.

Antipyrin Iodide is known in the trade as *iodopyrin*.

Antipyrin Salicylate is *salipyrin*.

Antipyrin-salol is a brownish fluid obtained by melting together equal parts of antipyrin and salol. It is employed as a hemostatic, chiefly in uterine hemorrhage, applied on tampons.

Antipyrin Tannate is marketed as *tannipyrin*.

Antirheumaticum is a combination of sodium salicylate and methylene blue, occurring as dark-blue crystals of faintly bitter taste. It is prescribed in doses of 1 to 1½ grains several times daily.

Antirheumatin and **Antirheumin** are snyonyms of *fluorrheumin;* which see.

Antirhinol is described as a mixture of tannic acid, salol, and oil of sandalwood.

Antirin is a German coryza remedy reported to contain cocaine and boric acid.

Antisclerosin is a remedy marketed in tablet form and corresponding to Trunecek's serum. It is employed in calcification of blood-vessels and in certain nervous diseases.

Antiscrofulin is said to contain potassium-guaiacol sulphonate, potassium iodide and hemoglobin, and is employed in scrofula and phthisis.

Antisepsin is the name applied to two entirely different products. The commoner article, also known in some quarters as *asepsin*, is monobrom-acetanilid or bromanilid, $C_6H_4BrNH(C_2H_3O)$, and occurs as white crystals that are soluble in alcohol or ether but sparingly soluble in water. It is

used externally as a surgical antiseptic in 1:10 ointment and internally as an antipyretic and anodyne, in doses of ½ to 1½ grains. Antisepsin, *Viquerat* is a lymph obtained by injecting solution of iodine trichloride into abscesses and gathering the exuding serum.

Antiseptin, Radlauer, also designated as *zinc boro-thymol-iodide*, is a mixture of zinc sulphate, thymol, zinc iodide, and boric acid. It is used as a vulnerary. Antiseptin, *Schwarzlose*, a veterinary prophylactic and remedy, is said to be a solution of zinc sulphate and alum in water.

Antiseptoform is a very recent formaldehyde compound used as an atmospheric disinfectant and deodorizer.

Antiseptol is the trade name of *cinchonine iodo-sulphate* or cinchonine herapathite. The article occurs as a bulky, reddish-brown powder, containing 50 per cent. of iodine and introduced as a substitute for iodoform externally and internally. Dose, 1 to 5 grains. It has been but very little heard of during the last few years.

Antispasmin is the fanciful name given to *narceine-sodium and sodium salicylate*, $C_{23}H_{28}NO_9$-$Na+3C_6H_4.OH.COONa$; a white, hygroscopic, unstable powder containing 50 per cent. of narceine, soluble in water when freshly made but becoming insoluble and dark-colored with age and exposure. It is employed as an antispasmodic, particularly in whooping-cough of children, in doses of ⅛ to ¾ grain three or four times a day, usually given in sweetened solution. Antispmasmin must be kept well protected against light and air.

Antispirochetic Serum.—See under serums.

Antisputol is a perfumed mixture of peat, solution of copper sulphate and formaldehyde, which is intended especialy as a disinfectant for spittoons, etc.

Antistaphylococcus Serum and Antistreptococcus Serum.—See under serums.

Antistreptococcin is Marmorek's *antistreptococcus serum;* which see.

Antisudorin, a specialty for use in excessive sweating of the feet, is said to be a mixture of salicylic, boric, and citric acids, with glycerin, diluted alcohol and flavoring ethers.

Antitaenin is a tapeworm remedy consisting, according to the makers' statements, of extract of male fern, kousso, and podophyllin.

Antitetanus Serum.—See under serums.

Antithermoline is analogous to antiphlogistine.

Antithyroidin is a thyroid serum introduced about three years ago by Prof. Moebius. It is obtained from the blood of sheep from which the thyroid gland has been removed six weeks previously, and contains ½ per cent. of carbolic acid as a preservative. It is used in Basedow's disease (exophthalmic goiter), usually per os in doses of 8 minims gradually increased to 70 minims thrice daily; sometimes it is given hypodermically, 15 to 30 minims per dose daily.

Antitoxin, Diphtheria, is regarded by many physicians as the best constitutional means for the treatment of true diphtheria. It is obtained from the blood of horses that have been immunized against the disease by successive inoculations with the specific poison of diphtheria. It is prepared in various concentrations, and put up in variously devised and dated tubes, bulbs, etc., containing a specified number of "immunity units," and usually contains carbolic acid or some other antiseptic as a preservative. It is used almost exclusively subcutaneously; some have given it intravenously and others per os, with reported good results. The ordinary dose injected is 2,000 to 3,000 immunity units, but as much as 20,000 units have been given as the initial dose in exceedingly severe cases, and 60,000 units have been employed successfully in treating the same case. While employed generally in diphtheria, this antitoxin has latterly also been recommended for use in severe scarlet fever cases and in the broncho-pneumonia and other secondary pneumonias complicating the various infectious diseases of children. Diphtheria antitoxin

should be kept cool and be disturbed as little as possible; when it has reached the age-limit indicated on the labels, it should be exchanged for a fresh lot.

Antitoxin, Hay Fever.—See *pollantin.*

Antitoxin, Tetanus, as introduced and prepared by Tizzoni and Cattani, is a dry powder put up in vials of 5 grams, which represents 5,000,000 immunity units and constitutes a full dose. It is employed subcutaneously or intravenously. The contents of a vial are dissolved in ten parts of sterilized water, and of this half is injected at once, and the remainder in four portions on the following days.

Antitussin, as known on this market, is a 5 per cent. ointment of difluordiphenyl ($F.C_6H_4.C_6H_4.F$), which is prescribed chiefly in whooping-cough but to a small extent also in tonsilitis and in inflammatory pharyngeal affections. The dose per inunction is 5 grams.

Antityphus (Antityphoid) Extract of Dr. V. Jez is a preparation of the spleen, marrow, and brain of rabbits immunized against typhoid fever; a reddish, alkaline liquid given in doses of a tablespoonful every 1 to 3 hours until febrile movement is entirely wanting, then thrice daily for several days more.

Antivenin is a snake-bite antitoxin prepared according to Dr. Calmette; it will be described under serums.

Antivom is the name applied to 3 grain anesthesin pills, that are prescribed in sea-sickness and nausea. Dose, 1 or 2 pills before meals.

Antorin is a mixture containing boric acid, tartaric acid, oil of wintergreen, fruit essence and spirit of rose. It is used to arrest excessive perspiration.

Anusol is defined as "bismuth iodoresorcinsulphonate," the chemical formula and method of preparing which is not generally known. It is marketed only as suppositories having the composition; anusol 7.5 grams, zinc oxide 6 grams, Peru balsam 1.5 grams, cacao butter 19 grams,

simple cerate 2.5 grams, for twelve suppositories. These are used in hemorrhoids and fissured anus.

Anytin is a 33⅓ per cent. aqueous solution of ichthyolsulphonic acid, which is used to some extent in 1 to 2 per cent. solutions as a surgical disinfectant but chiefly as a means of rendering water-insoluble medicaments soluble in water. A number of such solutions are marketed under the generic name "*anytoles*," the principal ones being *eucasol* and *metasol;* the former is a 25 per cent. solution of eucalyptol in anytin, and metasol is a 40 per cent. solution of meta-cresol. Besides these two, there are made anytoles of cresol (50 per cent. cresols), creosote (40 per cent.), guaiacol (40 per cent.), benzol (20 per cent.), peppermint oil (25 per cent.), wintergreen oil (20 per cent.), turpentine oil (15 per cent.), camphor (15 per cent.), and iodine (10 per cent.).

Apallagin is the mercury salt of nosophen (tetra-iodophenolphtalein); a yellow powder, soluble in ether. It is intended as a surgical antiseptic, particularly on venereal lesions; but little or nothing has been heard of it in medical literature. It must be kept protected against light.

Apergols are capsules containing apiol, ergotin, savine oil, aloin, and aromatics. They are prescribed in amenorrhea and dysmenorrhea, 1 to 2 capsules thrice daily.

Aphthenol is an alleged prophylactic against foot-and-mouth disease of cattle.

Aphthisin is a combination of 9 parts of potassium guaiacolsulphonate (better known as thiocol) and 1 part of petrosulfol (Austrian ichthyol). It is marketed as a syrup (6 per cent.), and as 4-grain capsules; the dose of the former is a teaspoonful to a tablespoonful; of the capsules 1 to 4, three or four times a day.

Aphrotin is, according to Aufrecht, aromatized oat-flour containing small quantities of iron, sodium bicarbonate, and calcium phosphate. It is intended as a tonic.

Apioline is described by Chapoteaut, its introducer, as the active principle of parsley and quite different from apiol. It is obtained from ethereal

oil of parsley seed by distillation and saponification, and occurs as a thick, reddish liquid of the specific gravity 1.113 and readily soluble in alcohol. It is prescribed in amenorrhea and dysmenorrhea. Dose, daily 2 or 3 of the 3-grain capsules in which form only the preparation is marketed.

Apitezo is a food stated to contain approximately 0.1 per cent. of metallic iron and 0.2 per cent. of phosphorus organically combined.

Apocodeine Hydrochlorate, $C_{18}H_{19}NO_2.HCl$, is the salt of a derivative of codeine; a yellowish-gray to greenish-gray, hygroscopic powder, freely soluble in water. In action it is in the main analogous to codeine, and has hence been used as an expectorant and sedative, chiefly in chronic bronchitis; but latterly it has come into prominence as a subcutaneous laxative, 30 to 40 minims of a 1 per cent. solution being the usual dose per injection for this purpose. Dose per os, ⅛ to 1 grain.

Apolysin is a substance closely related to phenacetin, a citro-paraphenetidin, or monocitryl-paraphenetidin. It occurs as a white powder of faint odor and acidulous taste; moderately soluble in water, more freely so in alcohol or glycerin. It behaves as an acid (monophenetidin-citric), and is employed therapeutically as an antipyretic and analgesic claimed to be comparatively non-toxic and non-cumulative. Dose, 10 to 30 grains.

Apomorphine Bromomethylate or **Methylbromide** is described under its trade name *eupophin*.

Apomorphine Hydrochlorate, as is known, was heretofore used only as an emetic and in smaller doses as an expectorant. About four years ago, however, Dr. C. J. Douglass drew attention to its remarkable sedative and hypnotic powers, and since then it has been largely employed subcutaneously as an antispasmodic and nerve sedative in hiccough, hystero-epilepsy, acute alcoholism, angina pectoris and puerperal convulsions; small doses, short of producing

nausea, are given (1-30 to 1-20 grain). The solution for injection should always be prepared fresh as wanted, with freshly boiled distilled water.

Aqua Ferro-Calcea (Terlik) is a preparation consisting of iron pyrophosphate, calcium phosphate, glycerin and an aromatic tincture, and employed in anemia, rickets, whooping cough, etc. Dose, a teaspoonful to a tablespoonful.

Aquasanin is used for sterilizing drinking-water. It consists of four kinds of tablets that are said to generate ozone and hydrogen dioxide in the water.

Aquinol is a disinfectant reported to consist of potash soap, glycerin, thymol and formaldehyde. See caution under *formaldehyde*.

Arabella Water is a Hungarian bitter water, consisting essentially of magnesium sulphate (22 grams per liter), sodium sulphate (15.4 grams), calcium sulphate (1.5 grams), magnesium chloride (0.8 gram), and magnesium carbonate (1.26 grams).

Arbutin, $C_{12}H_{16}O_7+\frac{1}{2}H_2O$, is a glucoside or bitter principle residing in uva ursi; white, odorless crystals, quite freely soluble in water or alcohol, but insoluble in ether. It is used in place of uva ursi preparations as a diuretic and cystic demulcent. Dose, 3 to 10 grains three or four times daily; maximum dose, 15 grains.

Arecoline-Eserine is a mixture of equal parts of arecoline hydrobromate and eserine sulphate, intended for use as a myotic or in veterinary practice as a cathartic similar to its components. Dose (horses), ¾ to 1½ grains hypodermically.

Arecoline Hydrobromate, $C_8H_{13}NO_2.HBr$, is a salt of the alkaloid of areca nut, occurring as white crystals easily soluble in water and alcohol. It is used chiefly in veterinary medicine, as an active cathartic similar to eserine in action; 1 to 1½ grains is injected subcutaneously in horses in cases of colic. In human medicine it serves as a myotic, a few drops of a 1 per cent. solution being instilled at a time, and as an a anthelmintic (1/15 to 1/10 grain).

Aresin is a not closely characterized remedy for gout.

Argenol is an albuminoid of silver, occurring in small brown crystals containing 10 per cent. of silver and readily soluble in water or glycerin. It is used as an astringent bactericide just like protargol (in gonorrhea, eye affections, etc.).

Argentamine is one of the first attempts at the modern organic compounds of silver; a 10 per cent. solution of silver nitrate in 10 per cent. ethylenediamine solution. It occurs as a colorless, alkaline liquid, which does not give precipitates with sodium chloride or albuminous fluids, and is freely miscible with water. Its chief use is as an application in gonorrhea and in purulent or follicular conjunctivitis; but it has been given internally, a teaspoonful to a tablespoonful of a ½ to 1 per cent. solution containing a little glycerin every two or three hours, in phthisical diarrhea and obstinate entero-colitis. It is applied in gonorrhea in ⅛ to 4 per cent. solutions; in eye disease, in 2 to 5 per cent. solutions. It should be preserved in dark-glass bottles; discoloration is said not to affect its activity, and usually to be removable by filtration through paper.

Argentol, or *silver quinaseptolate*, is a compound of silver with oxyquinolinedisulphonic acid, of the formula $C_9H_5N.OH.SO_3Ag$; a fine insoluble powder used externally in 1 to 2 per cent. ointments or dusting-powders in syphilitic ulcers, etc., in 1:1,000 to 3,000 mucilage suspensions in gonorrhea, etc. Internally it is prescribed as an intestinal disinfectant. Dose, up to 15 grains per day. It must be kept well protected from the light.

Argentose is a synthetic compound of silver and a nucleo-proteid, containing 30 per cent. of silver. It occurs as black scales, freely soluble in water or glycerin. It is used chiefly in gonorrhea (2 to 20 per cent. solutions) and purulent eye disease (up to 50 per cent. solutions).

Argonin (*silver-casein*) results from the interaction of casein-sodium and silver nitrate. It is a white powder containing 4.25 per cent. of silver

and readily soluble in hot water. It is employed principally in gonorrhea, in 2 to 5 per cent. solutions, which should always be prepared fresh and dispensed in dark-amber bottles. Latterly a *soluble* modification has been marketed, which contains 10 per cent. of silver and is readily soluble in water; its uses are the same as those of the regular argonin, but it is twice as powerful.

Argyrine has nothing to do with silver, but is an alkaloid obtained from horse chestnut, that is used internally in hemorrhoids. Dose, ⅙ grain.

Argyrol is an organic compound of silver (*silver-vitellin*) introduced two years ago by Dr. A. C. Barnes. It contains 30 per cent. of metallic silver, and is soluble in water to almost any degree. The claims are made for this article that it is perfectly non-irritating even when used in concentrated solution and that its solutions keep without deteriorating. Its therapeutic uses are the same as those of the older silver salts—in gonorrhea, infectious diseases of the eye, nasopharyngeal affections, etc. It is applied in 2 to 5 per cent. injections in urethritis, and in 5 to 50 per cent. solutions in some other ailments. Very recently the name "argyrol" has been given to a different silver compound, of French manufacture, and defined as silver nucleinate; further data being still wanting and the article as yet unknown in the American market.

Arheol is an alcohol of the formula $C_{15}H_{26}O$, derived from santalwood oil of which it constitutes 60 to 90 per cent. It occurs as an oily liquid, and is marketed in 3 grain capsules, which Ravasini has used internally in gonorrhea and its sequels in the dose of 6 to 12 per day. It seems to have precisely the same action as oil of santal, but stated to have less tendency to upset the stomach. It also appears to be identical with santalol.

Arhovin is described as the addition-product of diphenylamine and thymyl-benzoic acid ester, obtained by estering thymyl-benzoic acid with alcohol and combining the ester with diphenylamine. It is a liquid of the specific gravity 1.055,

and of aromatic odor and burning taste; insoluble in water; soluble in ether, chloroform, or alcohol. It is used internally in gonorrhea; several 0.25 gram capsules (the only form in which it is marketed) are given per day.

Aristochin or *aristoquin*, chemically definable as diquinine carbonic ester or neutral carbonic ester of quinine, occurs as a white practically tasteless powder containing 96 per cent. of quinine alkaloid, easily soluble in chloroform, alcohol, or acids, yielding bitter solutions; difficultly soluble in ether, and insoluble in water. It is heralded simply as a tasteless form of quinine which but seldom irritates the stomach or produces cinchonism and the other toxic effects of ordinary quinine. Its dosage is the same as that of the usual quinine compounds. It is largely used for children, especially in whooping-cough.

Aristol is chemically *dithymol diiodide* or *diiodo-dithymol*, and is also known in different markets by the trade names *thymotol* and *annidalin*. It occurs as a reddish-brown, voluminous powder of faint aromatic odor and containing 45.8 per cent. of iodine; insoluble in water and glycerin, slightly soluble in alcohol, readily so in ether, chloroform, collodion, and oils. It is employed as a succedaneum for iodoform externally, and is applied in the same way. It should not be brought into contact with hydroxides, carbonates, metallic oxides, ammonia, starch, corrosive sublimate or other substances for which iodine has any chemical affinity. In dissolving aristol, heat must be avoided; solutions are properly made by trituration at a low temperature. The solutions, as well as the drug itself, should be preserved in dark bottles.

Aromatin is an albuminated ferric pyrophosphate in liquid form and an effervescent sodium pyrophosphate in powder form. Dose, a tablespoonful of the fluid after each meal, followed by a powder dissolved in a small wineglassful of water and drunk while effervescing.

Arrhenal is a French trade name for *disodium methylarsenate* or *sodium methylarsenate*, and

will be referred to under the former chemical designation.

Arrhenal-Lithium is defined as *lithium chlorhydromethlyarsenate*, and recommended as a readily assimilable arsenical compound. See caution under *formaldehyde*.

Arsen-ferratin is an arsenated ferratin containing 0.06 per cent. of arsenous acid; a red powder of peculiar odor. Dose, 5 to 10 grains three times daily.

Arsen-hemol is hemol containing 1 per cent. of arsenous acid; a brown, insoluble powder, employed as an alterative and hematinic in skin diseases, neuroses, etc. Dose, 1½ to 5 grains, two or three times a day, generally prescribed in pills.

Arsitriol is a name given by Schlagdenhaufen to *calcium glycerino-arsenate*, used as a readily assimilable nerve tonic.

Arsycodile is a trade name for *sodium cacodylate* marketed abroad in tubes containing 0.05 gram in sterilized solution intended for hypodermic or rectal use, and as 0.025 gram pills. *Fer-* or ferro-*arsycodile* is iron cacodylate in pill form (0.025 gram each).

Arsylin (*arsen-protylin*) is an arsenic, phosphorus and albumin compound containing 0.1 per cent. of arsenic acid and 2.6 per cent. of phosphorus. It occurs as a yellowish-white, odorless powder, of faint acidulous taste, and absorbed only on reaching the intestines. It is prescribed as an alterative tonic.

Arsynal is another trade name for *disodium methylarsenate*.

Artemesin or *oxysantonin*, $C_{15}H_{18}O_4$, is a body existing beside santonin in the seed of artemisia maritima; white crystals soluble in chloroform and hot alcohol, but insoluble in cold water. It is marketed in France, combined with quassin and ferrous oxalate, as "dragées de fer Briss," of which the dose as a bitter tonic and appetizer is 2 pills before each of the two chief meals.

Arthriticin is a German specialty defined as the "nitrile of the ethyl cresol of amido-acetic acid and diethylenimine" (piperazin), and ex-

tolled as a gout and rheumatism remedy. Nothing further seems to be known about it.

Arvenol is a coryza remedy said to consist of an ethereal solution of menthol, thymol and camphor, used by inhalation through a tube containing some cotton impregnated with a few drops of the liquid.

Asaprol is chemically *calcium betanaphtol-alphamonosulphonate*, $CaC_{20}H_{14}S_2O_8+3H_2O$, and is obtained by heating 5 parts of beta-naphtol with 4 parts of concentrated sulphuric acid until the resulting mass dissolves clearly in water, saturating the solution with calcium carbonate, and evaporating the filtrate to dryness. In the fresh state it is a faintly reddish, neutral, odorless powder that is readily soluble in water; with age it darkens, and becomes less soluble. It is used as an antiseptic, antipyretic and analgesic in tuberculosis, rheumatism, etc., in doses of 5 to 15 grains several times a day. It also serves as a test for albumin in the presence of albumose and peptone. Combining it with antipyrin, quinine salts, potassium iodide, sodium bicarbonate or sulphates has been specifically advised against.

Asepsin is the name of two different substances described here under *antisepsin* and *gaultherine* respectively.

Aseptol (*sozolic acid*) usually means a 33⅓ per cent. aqueous solution of ortho-sulphocarbolic acid; a yellowish or brownish fluid, specific gravity 1.155, and soluble in water or alcohol. It is used chiefly as an external antiseptic, in 1 to 10 per cent. solutions, in skin diseases, throat affections, etc., but to some extent also internally, in the same doses as salicylic acid. In chemistry it serves as a test for albumin and for bile in urine. Latterly a preparation has been introduced in Norway under the name of "aseptol," which is said to consist of chinosol, soap, and water, with or without various aromatic substances such as terpineol.

Aseptolin is a preparation introduced some years ago by Dr. Cyrus Edson as a remedy for tuberculosis and malaria. It is described as an

0.02 per cent. aqueous solution of pilocarpine carbolate containing 2.75 per cent. of carbolic acid in addition. It is used hypodermically, 1 to 2 drams being injected once a day. The article has been very little heard of recently.

Asparol is a fluid extract of asparagus tops, used in diabetes and kidney disease.

Asphalin Tea (*species myrtilli comp.*) consists essentially of the leaves and blossoms of huckleberry, and is used in diabetes.

Aspirin is the trade designation for *acetylsalicylic acid* or *salicylic acid acetic ester* which occurs as white needles that are difficultly soluble in water but readily so in alcohol or ether. It is decomposed in solution and is incompatible with alkalies; hence it should be administered by itself in powder form. It is extolled as an agreeable and efficient substitute for sodium salicylate in rheumatism, phthisical fever, diabetes, etc., and is given in the same doses as the latter drug.

Asterol is a double salt of mercury paraphenolsulphonate (sulphocarbolate) and ammonium tartrate, of the formula $C_{12}H_{10}O_8S_2Hg.4C_4H_4O_6(NH_4)_2 + 8H_2O$; a yellowish powder, containing 15 per cent. of mercury, and soluble in hot water, the solution remaining clear on cooling. Ammonia and alkalies do not precipitate the mercury from solutions. It is claimed to possess all the advantages of corrosive sublimate as a disinfectant without its drawbacks. It is used in 2 to 5:1000 solutions; also by intramuscular injection in syphilis, 15 minims of a 4 or 5 per cent. solution. It is marketed also as 0.2 gram tablets.

Astra is an infants' food with 12.7 per cent. albumin content.

Atoxyl, chemically *meta-arsenous acid anilid* or *anilid meta-arsenite*, occurs as a white, odorless, tasteless crystalline powder readily soluble in water. It is claimed to be less poisonous than the ordinary arsenical compounds. Used in skin diseases, cachexias such as accompany carcinoma, etc. It is generally administered subcutaneously, 1 to 3 grains per day; it is said not to impart a

garlicky odor to the breath, perspiration, and dejections as the cacodylates do.

Atrabilin is described as a light-yellow, stable liquid preparation of the suprarenal gland, which is used chiefly in ophthalmology to produce mydrasis and anesthesia and to relieve congestion. It is generally prescribed in 1:5 dilution with distilled water or rose water containing 4 per cent. of boric acid.

Atropine Methylbromide, or *methyl-atropine bromide*, $C_{17}H_{23}NO_3Br$, was recently introduced by Dr. L. Vaupel as a mydriatic, antihidrotic, and antisialogogue, similar to atropine but more speedy and evanescent in action than the latter. It crystallizes in white leaflets containing 21 per cent. of bromine, and readily soluble in water and diluted alcohol. It is applied in 1 per cent. solution. See caution under *formaldehyde*.

Atropine Methylnitrate is better known by the trade name *eumydrin*. It occurs as a white powder, soluble in water, and is used like the preceding atropine salt but principally only as a mydriatic. See caution under *formaldehyde*.

Atroscine is an optically inactive form of hyoscine, and forms colorless crystals insoluble in water but soluble in alcohol, ether or chloroform. It has been prescribed as a mydriatic in 1 per cent. solution in castor oil, and internally as a sedative like hyoscine.

Attritin is the name applied to a sterilized solution of sodium salicylate (17.5) and caffeine (2.5) in distilled water (80), recommended by Mendel and Behr for use by intravenous or intramuscular injection in cases of rheumatism, sciatica and the like, where the employment of salicylic acid or its salts by the mouth or topically is contraindicated. It is marketed in ampullas containing 2.25 c.c., which constitutes the dose, to be given once every 12 hours to 3 days.

Aulicin consists of pills said to contain iron peptonate, freshly precipitated ferric oxide, anise, blessed thistle, quinine hydrochlorate, and juniper

extract. It is prescribed for anemia and neurasthenia.

Auramine is a name applied to *pyoktanin yellow*, an anilin dye used as an antiseptic in certain eye diseases. (See pyoktanin.)

Autoplast is a collodion-like liquid used as an antiseptic-protective paint in burns and wounds.

Auxil is a German specialty intended for use in varicose ulcers, burns, etc., and consisting of three preparations: a bath powder, a dusting-powder for wounds, and a blood-purifying tea.

Avenine, formerly defined as a alkaloid but latterly more correctly described as a resinoid, is an extract of avena sativa claimed to contain the alkaloidal principles present in oats. It occurs as brown, friable masses of aromatic odor, and soluble in alcohol. It is used as a nerve stimulant in doses of 1/120 to 1/60 grain several times daily, given in pills.

Avenose is a mixture of oat flour and soluble acorn-malt extract.

Azymol, according to Aufrecht, is a red-colored and aromatized alcoholic solution of salicylic acid, saccharin, and menthol, which in diluted form serves as a mouth and wound antiseptic.

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Babain is a new compound of antipyrin and salicylic acid, the exact composition of which is not divulged.

Bacillol is a soap solution of cresols, similar to the liquor cresoli saponatus Ph. G. iv. and lysol, containing about 52 per cent. of cresols; a dark-brown, clear, thick, oily fluid of faint alkaline reaction, specific gravity of 1.100, odor reminding of carbolic acid but less pervasive and persistent. It is freely miscible with water, yielding almost perfectly transparent solutions. It has been employed as a medicinal disinfectant in 1 to 2 per cent. solutions and particularly extolled in veterinary practice; it has been withdrawn from the market.

Barium Chloride was recommended a few years ago as a reliable purgative, given intravenously, in the colic of horses—6 to 20 grains dissolved in 2½ drams of water. Very recently Dr. Schedel pointed out its usefulness in human medicine as a cardiac tonic similar in its indications to digitalis. He gives ⅛ to ¾ grain twice daily, with a little milk sugar, two hours after the principal meals. The maximum dose is 3 grains.

Barmenit is a name given to *sodium chloroborate*.

Barutin is the name applied to the double salt *barium-theobromine and sodium salicylate* occurring as a white, faintly alkaline, water-soluble powder containing 25.5 per cent. of theobromine. According to Dr. E. Bibergeil, it is an efficient diuretic. Dose, 5 to 10 grains, in sweetened solution; acid syrups should be avoided. As the product is very susceptible to the influence of carbon dioxide, which decomposes it, it should be kept well stoppered.

Basedowsan is a serum obtained from the blood of goats and sheep from which the thyroid gland has been extirpated. It contains 0.5 per cent. of carbolic acid as a preservative, and is used in Basedow's disease (exophthalmic goiter), internally and hypodermically. Dose, 15 to 60 minims after meals; subcutaneously 4 to 15 minims. The preparation is very similar to if not identical with Moebius' antithyroidin.

Basicin is a compound of quinine hydrochlorate and caffeine, containing 60 per cent. of quinine and 30 per cent. of caffeine; a white crystalline substance soluble in 1 part of water, and, according to A. Kreidmann, is thrice as powerful as quinine yet free from its by-effects. It is employed per os and subcutaneously in migraine, chronic rheumatism, influenza, etc.; 3 to 8 grains per dose. *Basicin oil* consists of dried basicin 5, chloroform 37.5, alcohol 12.5, and olive oil 45; it is used as a liniment as an adjunct to the internal use of the drug or where the latter is not borne well per os or subcutaneously.

Basol is a Swiss liquid disinfectant containing

50 per cent. of cresol and intended as a substitute for lysol. It is very similar to the liquor cresoli saponatus of the Ph. G.

Bavarol is analogous to the preceding article.

Bebeerine must not be confounded with *berberine*. The former is an alkaloid from nectandra or pareira brava of the formula $C_{19}H_{21}NO_3$, and is given in doses of 1/12 to 1½ grains, according to the indications. Berberine is the colored alkaloid of berberis vulgaris and some other plants, of the formula $C_{20}H_{17}NO_4$, and is administered in doses of 1 to 15 grains.

Benesol is a dental local anesthetic said to be a sterile solution of eucaine, cocaine hydrochlorate, carbolic acid, menthol, eucalyptol, and amyl nitrite.

Benzamido-semicarbazide is the chemical designation for the article marketed as *cryogenin*, which see.

Benzanalgen is synonymous with *quinalgen*.

Benzanilid (*benzoyl-anilin* or *phenyl-benzamide*), $C_6H_5NH.CO.C_6H_5$, occurs in white to reddish crystals, readily soluble in alcohol but nearly insoluble in water. It is used as a mild antipyretic, especially in the infectious diseases of children, in doses of 1½ to 6 grains; adults receive 10 to 15 grains per dose.

Benzene or *benzol* is used to a limited extent as an antispasmodic and anticatarrhal in whooping cough, influenza, etc., in doses of 2 to 10 minims every three hours, taken in emulsion, in capsules, or on sugar. Maximum dose, 45 minims.

Benzo-Eugenol (*benzoyl-eugenol* or *eugenol benzoate*) results from the action of benzoyl chloride upon eugenol-sodium, and occurs in white, odorless crystals which are soluble in alcohol and ether but insoluble in water. It is prescribed in tuberculosis in place of benzosol, also in neuralgic headache. Dose, 8 to 15 grains.

Benzoic Acid Benzyl Ester is *peruscabin*.

Benzoic Acid Sulphinid.—See *saccharin*.

Benzoiodhydrin results from the interaction of benzoyl iodide and epichlorhydrin. It is a crystalline substance containing 38½ per cent. of

iodine, unctuous to the touch and soluble in ether, alcohol or chloroform. It is said not to produce iodism and smaller doses of it to have the same therapeutic effects as potassium iodide. Dose, 2 to 5 grains, usually prescribed in sugar-coated pills.

Benzonaphtol (*naphtol benzoate*), $C_6H_5.COO.C_{10}H_7$, is obtained by melting together equal parts of beta-naphtol and benzoyl chloride. It forms a whitish powder, soluble in alcohol and chloroform, almost insoluble in water; it darkens with age. It is given as an intestinal antiseptic in diarrheal affections. Dose, 5 to 10 grains several times daily, up to 75 grains a day; children receive 10 to 30 grains in the course of a day.

Benzosol is *guaiacol benzoate* or *benzoyl-guaiacol*, $C_6H_4.OCH_3.COO.C_6H_5$, a compound of guaiacol in which a hydrogen atom of its hydroxyl is replaced by benzoyl. It occurs as a white powder of slight odor and taste; readily soluble in hot alcohol, ether or chloroform; insoluble in water; guaiacol content 54 per cent. It is employed chiefly as an intestinal antiseptic; also in diabetes, cystitis, etc. Dose, 4 to 10 grains after meals.

Benzoylacetyl Peroxide is the chemical designation for *acetozone*.

Benzoyl-Anilin is a synonym of benzanilid.

Benzoyl-Eugenol.—See *benzo-eugenol*.

Benzoyl-Guaiacol.—See *benzosol*.

Benzoyl Peroxide (*benzoyl superoxide*), $C_6H_5.CO.O.O.CO.C_6H_5$, is prepared by treating commercial sodium peroxide (5 parts) with an equimolecular quantity of benzoyl chloride (9 parts) at about 4°C. The resulting precipitate is filtered off and recrystallized from hot alcohol. It occurs as permanent, non-deliquescent, white, odorless prisms melting at 103.5°C., slightly soluble in water, more readily soluble in alcohol, and dissolving in 35 to 50 parts of olive oil. According to Dr. Loewenhart, benzoyl peroxide is an indifferent substance when taken internally, but a mild anesthetic and powerful disinfectant when applied externally. It has been used as a wound

antiseptic and dermic pure or in 10 per cent. ointment, or as concentrated solution in olive oil.

Benzoyl-Pseudotropeine is the chemical designation of the article marketed as *tropacocaine.*

Benzoylsodium-thymol Oxybenzoate is known in the trade as *pyran* or *pyrenol.*

Benzozone is the old name for *acetozone.*

Benzyl-morphine. See *peronin.*

Bertolin is a Berlin remedy for gout, rheumatism and malaria, said to be essentially a fluid extract of the root of nicotiana bertolinii, containing some tannin and other ingredients but no colchicine or salicylic acid.

Beta-Eucaine.—See *eucaine.*

Beta-Lysol is a trade name for *liquor cresoli saponatus* of the German Pharmacopœia.

Beta-Naphtol Benzoate is described under *benzonaphtol.*

Beta-Naphtol-Bismuth is better known as *orphol.*

Beta-Naphtol Salicylate is *betol.*

Betol, also known as *naphtalol, naphtol-salol, salinaphtol, salicylic acid beta-naphtol ester, beta-naphtol salicylate,* $C_6H_4.OH.COO.C_{10}H_7$, is obtained by heating beta-naphtol-sodium and sodium salicylate with phosphorus oxychloride, and occurs as as a white, glistening powder, soluble in hot alcohol, insoluble in water. It is used in intestinal disorders, gonorrheal cystitis, articular rheumatism, etc. Dose, 4 to 10 grains three or four times daily given in wafers or with milk.

Betulinar is an antiseptic toilet wash consisting, according to Aufrecht, of menthol, salicylic acid, cumarin, borax, glycerin, alcohol and water.

Betulol is a liniment containing oil of betula as its chief ingredient and employed externally in rheumatism and gout.

Bilein is described as "the active principle of bile." It probably is either sodium taurocholate, sodium glycocholate, or sodium choleate (purified and dried oxgall). It is marketed in tablets.

Biodal is defined as *mono-iodo-dibismuth-meth-*

ylene dicresotinate. It is used as a dusting-powder on wounds. See caution under *formaldehyde.*

Biodolin is a fine, brownish-red, almost tasteless powder, having a slight odor like that of peach kernels, practically insoluble in water, ether or alcohol, decomposed slowly by dilute alkalies (resulting in the liberation of iodine and chinoline), and containing 53 per cent. of iodine, 30 per cent. of bismuth, and 17 per cent. of chinoline. It is used externally as a substitute for iodoform, and internally as an intestinal disinfectant and astringent. Dose, 2 to 6 grains.

Bioferrin is a hemoglobin preparation which is administered as a blood-builder to children in doses of 1 to 4 drams per day, and to adults in daily quantities of ½ to 1 oz.

Biogen is said to be magnesium peroxide (MgO_2) and described as an odorless, tasteless, permanent, insoluble, white powder, which is used "whenever the system vitality is reduced from any cause, when there is temporary or protracted failure on the part of the organs to perform their functions, and when it is required to increase nutrition," etc. Dose, 5 to 15 grains every three or four hours. Marketed also as 5-grain tablets.

Bioguaicol.—See *guaiacol phosphate.*

Bioplasm is a so-called "tissue food" containing "nuclein, lecithin, diastase, trypsin, fibrinogen, and other organic ferments." It is a light-gray powder of sweet taste and soluble in aqueous fluids. It is usually given in 5 to 15 grain doses several times a day, and allowed to dissolve in the mouth, and the patient is enjoined to drink water freely during the day. The article must be kept securely stoppered; moisture and light decompose it. It is marketed also as 5-grain tablets.

Bioplastica (Sereno) is a solution of lecithin specially prepared for subcutaneous use.

Bioplastin is what Simriani calls a nutrient and tonic preparation consisting essentially of lecithin, iron and the phosphates of yolk of egg.

Bios is a predigested nutrient containing albumin in the form of peptones and albumoses.

Bioson is described as an albumin-iron-lecithin

compound, made from casein and containing 0.24 per cent. of iron and 1.2 per cent. of lecithin. It occurs a brownish-gray powder, not unpleasant in taste and almost completely soluble in water. Dr. M. Heim recommends it as a nutritive. Dose, 1 to 2 ozs. per day, in milk, beef-tea, etc.

Bis-forma-sal is a name constructed from *bis*muth, *forma*ldehyde and *sal*icylic acid, from which the product is made. Chemically, the article is defined as *bismuth methylene disaliscylate*, and forms a white, odorless, insoluble powder. It is prescribed as an intestinal antiseptic and astringent; also as a vulnerary. Dose, 10 to 20 grains. See caution under *formaldehyde*.

Bismal is chemically *bismuth methylenedigallate*, $4C_{15}H_{12}O_{10}+3Bi(OH)_3$, and occurs as a grayish-brown, voluminous powder insoluble in the ordinary solvents, and employed as an intestinal astringent, chiefly in chronic diarrheas. Dose, 2 to 5 grains three to six times a day. See caution under *formaldehyde*.

Bismolan is a paste containing bismuth oxychloride.

Bismon is *colloidal bismuth oxide*, "a peculiar compound of lysalbin- and protalbin-sodium and bismuth meta-hydroxide." It occurs as a reddish powder, freely soluble in water. According to Dr. Kinner, it is a good gastro-intestinal tonic and antidiarrheal; he gives children 4 to 8 grains three to six times daily.

Bismutal or *bismutol* is described as a mixture of soluble bismuth phosphate and sodium salicylate, which serves as a wound-antiseptic as well as antidiarrheal: one of Radlauer's preparations.

Bismutan is an antidiarrheal remedy consisting of bismuth, resorcin and tannin, and occurring as a yellow, odorless, slightly sweet powder, which is insoluble in water. Dose for adults, 8 to 15 grains, taken as powders or in shake mixtures.

Bismuth Agaricinate, neutral, has the formula $(C_{16}H_{28}O_5)_3Bi_2$, and forms a white, tasteless powder, practically insoluble in water. It has been introduced as a remedy for intestinal catarrh and night sweats. Dose, 5 to 15 grains.

Bismuth Beta-Naphtolate is better known on

this market as *orphol* and will be referred to under that heading.

Bismuth Chrysophanate.—See *dermol.*

Bismuth Cinnamate is better known by the trade name *hetoform*, which see.

Bismuth Dilactotannate is the chemical designation for *lactannin*, which see.

Bismuth Dithiosalicylate is a synonym of *thioform.*

Bismuth Formic Iodide, according to the description given by the manufacturers, appears to be a mixture of glutol (formaldehyde-gelatin), aristol, and bismuth oxyiodide. It is employed as a surgical antiseptic and siccative on wounds, ulcers, burns, skin diseases, etc. See caution under *formaldehyde.*

Bismuth Gallate, Basic, will be described under *bismuth subgallate.*

Bismuth Lactogallate is used like the subnitrate but chiefly in diarrhea. Dose 5 to 15 grains.

Bismuth Loretinate or *loretin-bismuth*, or *bismuth meta-iodo-ortho-oxyquinoline-ana-sulphonate*, occurs as a yellow, insoluble powder. It is used internally as an intestinal astringent and antiseptic, chiefly in the diarrhea of phthisis; externally, in substance, ointment or dusting-powder, as a siccative wound antiseptic. Dose, usually 8 grains several times daily.

Bismuth Methylenedigallate is described under *bismal.*

Bismuth Methylenedisalicylate is the chemical name of *bisformasal.*

Bismuth-Naphtalin Benzoate will be referred to under *intestin.*

Bismuth Oxide, Colloidal, is marketed as *bismon*, which see.

Bismuth Oxyiodogallate is the chemical designation for *airol*, under which heading it is described.

Bismuth Oxyiodomethylenedigallate is *iodomuth*, which see.

Bismuth Oxyiodomethylgallate is described under *iodogallicin.*

Bismuth Oxyiodotannate is the chemical synonym of *ibit;* which see.

Bismuth Phenolsulphonate.—See *bismuth sulphocarbolate.*

Bismuth Phosphate, Soluble (*bisol*) is a water-soluble bismuth compound containing besides some sodium phosphate, 20 per cent. of bismuth oxide. It forms a white, odorless powder, of faintly alkaline taste, and is prescribed as a gastro-intestinal astringent in doses of from 3 to 8 grains several times daily.

Bismuth Proteinate is a synonym of *bismutose,* which see.

Bismuth Pyrogallate, $[C_6H_3(OH)_2O]_2BiOH$, also known as *helcosol* and *pyrogallol-bismuth,* occurs as a yellow or greenish-yellow, odorless, and tasteless powder, soluble in acids but insoluble in the usual solvents; it contains 60 per cent. of Bi_2O_3. It is employed internally as an intestinal disinfectant and astringent, and externally in certain skin diseases similarly to bismuth subgallate. Dose, 5 to 15 grains.

Bismuth Resorcinate, or *resorcin-bismuth,* is a compound of somewhat variable composition but containing about 40 per cent. of Bi_2O_3; a yellowish-brown powder insoluble in water. It is used in gastric catarrh, abnormal gastric fermentation, and the like. Dose, 2 to 8 grains several times daily.

Bismuth Sub-Benzoate, or *bismuth benzoate, basic,* $Bi(C_7H_5O_2)_3.Bi(OH)_3$, occurs as a white powder containing about 70 per cent. of Bi_2O_3 and insoluble in water. It is prescribed as a surgical antiseptic like iodoform, but chiefly for use in syphilitic ulcers.

Bismuth Subgallate, also known as *dermatol* and *basic bismuth gallate,* $C_6H_2(OH)_3CO_2.Bi(OH)_2$, is obtained by precipitating a dilute solution of bismuth nitrate in glacial acetic acid by means of a solution of gallic acid. It occurs as a yellow, odorless, and tasteless powder, insoluble in the ordinary solvents but soluble in dilute solutions of the alkalies. It is used externally as a sicca-

tive antiseptic, mostly pure or mixed with starch or talcum, and internally as an astringent in diarrhea, gastric ulcer, etc. Dose, 4 to 20 grains four or more times daily.

Bismuth Sulphocarbolate, or *bismuth sulphophenate* or *phenolsulphonate*, occurs as a pale reddish powder, partially soluble in water. It has been recommended by Dr. Hugh Woods in fever patients with fetid breath and coated tongue, and in fermentative dyspepsia and typhoid fever. Dose, 3 to 8 grains three or four times a day.

Bismuthal is a brand name of a "lac bismuthi cum pepsino" used chiefly in diarrhea. This article must not be confounded with *bismutal*, or *bismutol*.

Bismutose (*bismuth proteinate*) is a bismuth-albumin compound that occurs as a yellowish-white, fine, odorless and tasteless powder; insoluble in water or alcohol, but soluble in solutions of the alkalies. It is used principally as an intestinal astringent and a protective to the mucosa of the gastro-intestinal canal, chiefly in children; to a limited extent externally in intertrigo and burns. Dose, for children under 6 months of age, 15 to 30 grains hourly; older children take a teaspoonful at a dose. On exposure to light, bismutose gradually assumes a slate-gray color; it should hence be kept protected from light.

Bisol is described under *bismuth phosphate, soluble*.

Bituminol (*ammonium sulphobituminoleate*) is a very recent analogue of ichthyol, made by a Breslau (Germany) firm.

Blennostasine is the trade name applied to *cinchonidine dihydrobromate*, $C_{19}H_{22}N_2O(HBr_2)$. The article occurs as light-yellow, odorless, deliquescent, and very bitter prisms, that are readily soluble in water, less so in alcohol, and insoluble in ether or chloroform. It is employed chiefly in acute coryza, "colds" in the head, and hoarseness from catarrhal hypersecretion, in which affections it has a drying up effect like belladonna. Dose, 1 to 5 grains every hour according to the

effect desired. It is also marketed as 1, 3, and 5-grain pills.

Blood Salt.—See *physiologic nutritive salt.*

Blutan is an alcohol-free, carbonated solution of acid-albumin, iron and manganese peptonate, containing 0.6 per cent. of iron and 0.1 per cent. of manganese. It is used as a hematopoietic. Marketed also combined with iodine and bromine: as *iodoblutan*, carrying 0.1 per cent. of iodine; and as *bromoblutan*, carrying 0.1 per cent. of bromine. Dose, a teaspoonful to a tablespoonful.

Boldol is a product of the fractional distillation of boldo oil, intended for use internally in gonorrhea and hepatic affections. Further data are yet wanting.

Boliformin is a veterinary remedy described as being a condensation product of formaldehyde with aluminium silicate. It is used as a dusting-powder on wounds. See caution under *formaldehyde.*

Bonducin is a bitter principle obtained from bonduc seeds. It is prescribed as a febrifuge, in doses of 1 to 3 grains.

Boracetanilid, as its name implies, is an intimate mixture of boric acid (75) and acetanilid (25). It is used as a wound antiseptic in the pure form.

Boral is the name given by Leuchter to an aluminium borotartrate occurring as white crystals that are clearly soluble in water and have a sweet-astringent taste. It is employed as a disinfectant astringent, chiefly in diseases of the nose and throat, in substance (finely powdered) by insufflation or in solution containing some glycerin as a paint.

Boralid is said to be a mixture of equal parts of boric acid and acetanilid. It is used as a dusting-powder, principally in eczema and chafing.

Borneol Isovalerianate, also known as *bornyval*, is a liquid used in nervous disorders and functional neuroses. Dose, 4 minims, in capsules.

Bornyval.—See *borneol isovalerianate.*

Boro-Chloretone is a combination of boric acid

and chloretone, intended for use as a dusting-powder on wounds.

Boroform is probably a mixture of boric acid and formaldehyde. It is used in substance as a dusting-powder, or in 10 per cent. ointment, in place of iodoform. See caution under *formaldehyde.*

Borogen (*boric acid ethyl ester*) is a preparation used by inhalation through a special apparatus in the treatment of diseases of the nose, throat and lungs. It is said to become decomposed into its components by the moisture present in the pharnyx, lungs, etc.

Borol is an antiseptic said to be obtained by fusing a mixture of boric acid and sodium bisulphate. It occurs as odorless, colorless, glass-like lumps, soluble in water. It is used externally in 1 to 2 per cent. solutions, in diphtheria, gonorrhea, ozena, etc.; internally in erysipelas, diphtheria, croupous bronchitis, etc. Dose, 5 to 10 grains five or six times daily. This name has also been applied to an antiseptic solution of different constitution, each fluid ounce of which is said to represent sodium borate 12 grains, sodium bicarbonate 12 grains, sodium benzoate 5 grains, glycerin 90 minims, eucalyptol ¼ minim, thymol 5/16 grain, menthol ⅛ grain, and oil of pinus pumilio "q.s." It is applied to wounds, etc., in full strength; it is used as a gargle or irrigation diluted with 5 to 10 volumes of water.

Borolan is a dermal balm consisting of boro-glycerin and lanolin.

Boro-methylate is "an antiseptic salt prepared of formalin, boric acid, carbolic acid, thymol, methyl salicylate, menthol, eucalyptol, sodium biborate and sodium bicarbonate; very soluble and slightly alkaline." See caution under *formalhyde.*

Borotartrol is a product prepared from boric acid and neutral sodium tartrate.

Borosal is an aqueous solution of alum, borax, glycerin, and salicylic acid. It is employed as an antihidrotic externally.

Borsalyl is said to be a mixture of boric acid and sodium salicylate; an antiseptic.

Borsyl is a powder used in excessive perspiration; it is reported to consist of boric acid, alkaline borates, and cetyl alcohol.

Borophlogine consists, according to the manufacturers, of "potassium iodide, glycerin, thymol, eucalyptol and menthol, combined with a specially prepared and purified base composed of silica, magnesia, and alumina." It is a smooth, plastic, surgical dressing, intended as a substitute for the ordinary poultice in the topical treatment of congestions and inflammations.

Brandsanal is a burn remedy consisting, according to the manufacturers, of carbolic acid, picric acid, water and glycerin.

Brenzcain is the terse name applied to *guaiacol benzylic ether* or *pyro(brenz)catechin methyl-benzyl ether*. It occurs in white crystals, soluble in alcohol, ether or vasogen; insoluble in water. It is said to possess the advantages of guaiacol without its irritant action. It is used, however, chiefly in the production of local anesthesia by cataphoresis.

Brenz(pyro)catechin Dimethyl Ether.—See *veratrole*.

Brenz(pyro)catechin Ethyl Ether is a synonym of *guethol*, and will be referred to under that title.

Brenz(pyro)catechin Methyl-benzyl Ether is described under *brenzcain*.

Brenz(pyro)catechin Mono-methyl Ether is the well-known *guaiacol*.

Bromacetanilid is described under *antisepsin*.

Bromalbacide is a bromine substitution compound of albumin. It occurs as a yellowish-white powder, soluble in water; and is used as a substitute for the alkali bromides wherever these are not well borne. Dose, 5 to 15 grains.

Bromalin, or *bromethylformin*, or *hexamethylenetetramine bromethylate*, $(CH_2)_6N_4.C_2H_5Br$, results from the action of ethyl bromide upon hexamethylentetramine. It occurs as white crystals, soluble in water. It is used as a substitute for

the alkali bromides in doses of 30 to 60 grains Several times daily. See caution under *formaldehyde.*

Bromamide is chemically *tribromanilin hydrobromate*, $C_6H_4Br_3N.HBr$. It forms colorless, odorless, tasteless needles, soluble in chloroform, ether, or oils, insoluble in water, and sparingly soluble in cold alcohol. It has been employed as an anodyne and antineuralgic in doses of 10 to 15 grains.

Bromanilid is referred to under the synonym *antisepsin.*

Bromdiethylacetamide.—See *neuronal.*

Brom-Eigon will be described under the collective title *eigons.*

Bromelin is a digestive enzyme obtained from the pineapple (bromelia ananas), stated to be similar in action to pepsin and papain.

Bromethylformin is a synonym of *bromalin.*

Brometone is the terse name applied to *tribrom-tertiary-butyl alcohol*, $CBr_3.2CH_3.COH$, resulting from the action of caustic alkali upon a mixture of bromoform and acetone. It occurs as fine, white crystals of camphoraceous odor and taste, readily soluble in alcohol, ether or chloroform, and but slightly soluble in water. It is used as a nerve-sedative and antispasmodic. Dose, 5 to 10 grains, in capsules or syrup.

Brominol is a brominized sesame oil, like *bromipin*, introduced by Wm. Martindale of London.

Bromipin is a bromine addition product of sesame oil, in which the unsaturated fatty acids or their glycerin esters are partly transformed into saturated bromine-substituted fatty acids or their glycerides. It occurs as a yellow, oily liquid in the main similar in physical properties to sesame oil, and is recommended as an efficient substitute for the alkali bromides in epilepsy, cardiac palpitation, etc., whenever the latter drugs give rise to disturbances. It is made in two strengths: 10 per cent. and 33⅓ per cent., that is to say, containing those proportions of bromine. The dose of the former is 1 to 4 drams, three or four times daily; that of the stronger preparation,

one-third as much. It is generally prescribed in capsules (marketed also as such). Bromipin gets turbid when exposed to a low temperature, and should hence be kept in a moderately warm place in winter.

Bromlecithin is a compound of bromine and lecithin containing 30 per cent. of Br, occurring as nearly colorless, waxy masses, and claimed to be more assimilable than lecithin pure besides having sedative action. It is used in nervous diseases. Dose, 1 to 3 grains three times a day.

Bromo-Albumin is described under its more common designation, *bromosin*.

Bromochinal, or *acid dibromsalicylate of quinine*, $C_{20}H_{24}N_2O_2(C_6H_2Br_2.OH.COOH)_2$, forms yellowish, bitter crystals that are sparingly soluble in water, alcohol, or ether. According to its introducer, Prof. v. Noorden, 0.6 to 0.75 gram given twice daily lowers elevated temperature similarly to 0.5 gram of quinine hydrochlorate, and it has, besides, a soporific effect in febrile patients.

Bromocoll is a bromine-tannin-gelatin compound containing 20 per cent. of bromine organically combined. It forms a yellowish, odorless, tasteless powder; insoluble in the usual solvents, but soluble in alkaline fluids. It is another of the many modern succedanea for the alkali bromides being used in epilepsy and other nervous affections; it is also used externally as an antipruritic in various skin diseases, and is hence marketed also as a 20 per cent. ointment (with resorbin as the base), 10 per cent. solution (effected with the aid of borax 6, to 10 of bromocoll), dusting-powder, suppositories, and soap. Bromocoll, *soluble* contains borax as the solvent adjunct.

Bromofarina is a flour containing bromide and used for making the bread known as *bromopan*.

Bromoform (*formyl* or *methenyl tribromide; tribrom-methane*), $CHBr_3$, is obtained from acetone with bromine. It occurs as a colorless, heavy liquid (sp. gr. 2.83), of an odor and taste similar to chloroform, almost insoluble in water, but soluble in alcohol or ether and in about 80 parts

of glycerin. It acts as a nerve-sedative and antispasmodic, and has come into prominence in recent years as a remedy in whooping cough. Dose, for children, as many drops (not minims) as the child is years of age, three or four times daily; best given in emulsion or hydro-alcoholic solution. Owing to its heaviness and insolubility in water, it is dangerous to dispense it in aqueous mixture. Bromoform is so extremely volatile that the vials rapidly lose in weight on keeping; it should hence be procured only in limited quantity at a time, and kept in a cool place and protected from light. All prescriptions for bromoform should be carefully scanned; physicians sometimes forget that a single dram of this substance contains a large number of drops—one minim equals 5 drops. Poisoning by bromoform is usually treated by applying the stomach pump, injecting camphor and ether hypodermically, and resorting to artificial respiration.

Bromohemol, or *hemol bromide*, is hemol with 2.7 per cent. of bromine; a brown, insoluble powder, introduced as an easily assimilable nerve tonic and sedative. Dose, 15 grains three times a day.

Bromol.—See *tribromphenol.*

Bromolein is the name applied to a sterilized addition-product of the unsaturated fatty acids of almond oil. The article occurs as a yellow, odorless, oily liquid, containing 20 per cent. of bromine, and used subcutaneously where bromides are ordinarily employed. Dose, ½ to 2 drams.

Bromopan is bread made from bromofarina and containing 1 gram of bromide to the loaf. It is intended for use by epileptics.

Bromophenacetin, $C_6H_3.Br.OC_2H_5.NHCOCH_3$, occurs as colorless crystals melting at about 115° C., readily soluble in alcohol, and sparingly so in water. It was introduced as a sedative and analgesic, but little mention of it has as yet been made in literature. Dose, 10 to 20 grains.

Bromo-protoline is a compound of albumin and bromine (10 per cent.), occurring as a granular powder insoluble in the ordinary solvents but

soluble in alkaline solutions. It is used in place of potassium bromide when this is not borne well, and in similar doses. Marketed also as 5-grain tablets.

Bromopyrin is a designation applied to two different articles. The commoner is chemically *monobrom-antipyrin*, $C_{11}H_{11}BrN_2O$, occuring as white crystals soluble in alcohol or chloroform but insoluble in water; it is occasionally prescribed as a sedative and antipyretic, in place of antipyrin, and in the same dose. The other bromopyrin is of French origin, and consists of a granular effervescent mixture of caffeine hydrobromate, antipyrin, and sodium bromide. Dose, 1 to 2 drams.

Bromosin (*bromo-albumin*) is a compound of bromine and albumin, containing 10 per cent. of bromine; a yellowish-white powder, intended to replace the alkali bromides in certain cases. Dose, ½ to 2 drams.

Bromothymin is a whooping cough remedy stated to consist of ammonium, potassium and sodium bromides, bromoform, and compound syrup of thyme.

Brompeptone (*peptobromeigon*) will be referred to under the eigons.

Bromphenol, or *monobromphenol*, will be referred to under the latter title.

Brom-Protylin.—See under *protylin*.

Bronchitin is a cough remedy consisting of syrup of thyme and thiocol, and recommended particularly in phthisis and chronic bronchial catarrhs. Dose, daily three to five teaspoonfuls; for children, one to three teaspoonfuls per day.

Bryonin is a glucoside of bryonia alba, first isolated by Walz. It forms an amorphous, brownish-yellow, bitter powder, soluble in water or alcohol. Formerly it was very generally considered physiologically inert, but more recently some investigators have ascribed laxative and alterative properties to it, and have used it in hepatic congestion, chronic inflammation of the serous membranes and convalescence after acute infectious diseases. Statements as to the dose vary

this market as *orphol* and will be referred to under that heading.

Bismuth Chrysophanate.—See *dermol.*

Bismuth Cinnamate is better known by the trade name *hetoform*, which see.

Bismuth Dilactotannate is the chemical designation for *lactannin*, which see.

Bismuth Dithiosalicylate is a synonym of *thioform.*

Bismuth Formic Iodide, according to the description given by the manufacturers, appears to be a mixture of glutol (formaldehyde-gelatin), aristol, and bismuth oxyiodide. It is employed as a surgical antiseptic and siccative on wounds, ulcers, burns, skin diseases, etc. See caution under *formaldehyde.*

Bismuth Gallate, Basic, will be described under *bismuth subgallate.*

Bismuth Lactogallate is used like the subnitrate but chiefly in diarrhea. Dose 5 to 15 grains.

Bismuth Loretinate or *loretin-bismuth*, or *bismuth meta-iodo-ortho-oxyquinoline-ana-sulphonate*, occurs as a yellow, insoluble powder. It is used internally as an intestinal astringent and antiseptic, chiefly in the diarrhea of phthisis; externally, in substance, ointment or dusting-powder, as a siccative wound antiseptic. Dose, usually 8 grains several times daily.

Bismuth Methylenedigallate is described under *bismal.*

Bismuth Methylenedisalicylate is the chemical name of *bisformasal.*

Bismuth-Naphtalin Benzoate will be referred to under *intestin.*

Bismuth Oxide, Colloidal, is marketed as *bismon*, which see.

Bismuth Oxyiodogallate is the chemical designation for *airol*, under which heading it is described.

Bismuth Oxyiodomethylenedigallate is *iodomuth*, which see.

Bismuth Oxyiodomethylgallate is described under *iodogallicin.*

Bismuth Oxyiodotannate is the chemical synonym of *ibit;* which see.

Bismuth Phenolsulphonate.—See *bismuth sulphocarbolate.*

Bismuth Phosphate, Soluble (*bisol*) is a water-soluble bismuth compound containing besides some sodium phosphate, 20 per cent. of bismuth oxide. It forms a white, odorless powder, of faintly alkaline taste, and is prescribed as a gastro-intestinal astringent in doses of from 3 to 8 grains several times daily.

Bismuth Proteinate is a synonym of *bismutose*, which see.

Bismuth Pyrogallate, $[C_6H_3(OH)_3O]_2BiOH$, also known as *helcosol* and *pyrogallol-bismuth*, occurs as a yellow or greenish-yellow, odorless, and tasteless powder, soluble in acids but insoluble in the usual solvents; it contains 60 per cent. of Bi_2O_3. It is employed internally as an intestinal disinfectant and astringent, and externally in certain skin diseases similarly to bismuth subgallate. Dose, 5 to 15 grains.

Bismuth Resorcinate, or *resorcin-bismuth*, is a compound of somewhat variable composition but containing about 40 per cent. of Bi_2O_3; a yellowish-brown powder insoluble in water. It is used in gastric catarrh, abnormal gastric fermentation, and the like. Dose, 2 to 8 grains several times daily.

Bismuth Sub-Benzoate, or *bismuth benzoate, basic,* $Bi(C_7H_5O_2)_3.Bi(OH)_3$, occurs as a white powder containing about 70 per cent. of Bi_2O_3 and insoluble in water. It is prescribed as a surgical antiseptic like iodoform, but chiefly for use in syphilitic ulcers.

Bismuth Subgallate, also known as *dermatol* and *basic bismuth gallate,* $C_6H_2(OH)_3CO_2.Bi(OH)_2$, is obtained by precipitating a dilute solution of bismuth nitrate in glacial acetic acid by means of a solution of gallic acid. It occurs as a yellow, odorless, and tasteless powder, insoluble in the ordinary solvents but soluble in dilute solutions of the alkalies. It is used externally as a sicca-

employed as an alterative similar to arsenous acid. Dose, ½ to 2 grains.

Calcium Carbide, CaC_2, which, as is known, is used chiefly for generating acetylene gas, has been recommended by some in the treatment of inoperable cancer of the cervix and vagina. For this purpose a piece as large as a pea to a nut is left in the vagina overnight. The usefulness of this treatment has been disputed by many. Calcium carbide must be kept well protected against moisture, as water decomposes it, evolving acetylene and leaving slaked lime.

Calcium Chloride, $CaCl_2$, is familiar to pharmacists as far as physical properties are concerned. While formerly employed internally only in rachitis, arthritis, and chronic itching, it has in late years come into prominence as a means of arresting persistent bleeding, internally as well as topically. For this purpose it is given in doses of 10 to 20 grains several times daily, and applied locally in 1 in 15 solution.

Calcium Dimethylene-arsenate is a synonym of *calcium cacodylate*, which see.

Calcium Eosolate, $(C_9H_7S_2O_{12})_2.Ca_3$, is the calcium salt of trisulpho-acetyl-creosote. It is a grayish powder, of slightly pungent and ethereal odor, and acrid empyreumatic taste; soluble in about 10 parts of water, very slightly soluble in alcohol, but insoluble in chloroform, and readily soluble in hydrochloric, citric and some other organic acids. It represents approximately 25 per cent. of creosote. It has been used by Dr. H. Stern in diabetes and ulcerative phthisis. Dose, 5 to 20 grains three times a day.

Calcium Glycerino-Arsenate is described under *arsitriol*.

Calcium Glycerinophosphate, $PO.O_2CaO.C_3H_5(OH)_2+2H_2O$, also known by the brand name *neurosin*, occurs as a white powder, soluble in about 40 parts of cold water, and almost insoluble in boiling water or in alcohol. It is the salt of glycerinophosphoric acid most used—in rickets, wasting diseases, and convalescence from infectious diseases. Dose, 2 to 5 grains three times

daily in syrup or simple solution. It should not be dispensed in solution with carbonates, phosphates or lead salts, as decomposition is likely to ensue; and its solutions do not keep well and should hence be prepared only in small quantities at a time. Citric acid increases the solubility of the compound.

Calcium Iodate, $Ca(IO_3)_2+6H_2O$, is also known by the trade name *calcinol*. It occurs as a white powder or small crystals, soluble in about 400 parts of water and insoluble in alcohol. It is employed as an internal antiseptic in cystitis and gastro-intestinal fermentation, and externally in diphtheria and in ulcers and other lesions in which iodoform is usually applied. Dose, 3 to 5 grains three times a day.

Calcium Ortho-Guaiacolsulphonate is *guaiacyl*, which see.

Calcium Permanganate, also known as *monol* and *acerdol*, was introduced as a more agreeable and yet more powerful substitute for the potassium salt as a mouth-wash and internal disinfectant in diarrheas of children. It occurs as brownish-violet, very deliquescent crystals, readily soluble in water. Dose for children, ½ to 2 grains.

Calcium Peroxide or Superoxide (or *gorit*), CaO_2+4H_2O, occurs as a yellow powder, slightly soluble in water with the evolution of oxygen. It has been recommended as an antacid and disinfectant in acid dyspepsia and summer diarrhea in children. Dose (children's), 3 to 10 grains per day, according to age. It is used also as a topical application in diphtheria.

Calcium Salicylate, $(C_7H_5O_3)_2Ca+2H_2O$, occurs as a white, odorless, tasteless powder or crystals, sparingly soluble in water, more freely so in carbonated water. It is prescribed chiefly in gastro-enteritis and summer diarrheas of children, in doses of 5 to 20 grains.

Calcusol is described as a combination of piperidine parasulphaminebenzoate and potassium carbonate, and is intended as a remedy for rheumatic gout.

Calliandrein is defined as a glucoside of calliandra grandiflora, a Mexican shrub. It is a white, odorless, water-soluble powder, whose aqueous solution froths on shaking and emulsifies many substances. It has been used in intermittent fever; ten ¾-grain pills in the course of twenty-four hours.

Calmin is described as a compound (?) of antipyrin and heroin, and is extolled for use in whooping-cough, asthma, dymenorrhea, etc. Dose, 8 to 15 grains; for children, ¾ to 5 grains according to age.

Calodal or *kalodal* is a dietetic prepared from meat, and intended for use subcutaneously or by enema as well as per os. It contains 95 per cent. of readily soluble albuminous substances, and small quantities of meat salts (especially phosphates, traces of iron, and 0.2 per cent. of NaCl). It forms a yellowish-brown powder, which is easily but slowly soluble in water and almost odorless and tasteless. Dose, about 1 dram.

Calomelol, or *colloidal* or *soluble calomel*, is a whitish-gray, odorless, tasteless powder, soluble in alcohol, ether, benzene and water, and yielding therewith a milk-like fluid. It contains 80 per cent. HgCl and 20 per cent. albuminous substances. It is recommended by Galewsky as a dusting-powder in syphilitic ulcers, as moist 2 per cent. dressings, and as 30 per cent. ointment by inunction in syphilis (1 to 1½ drams per inunction).

Calomelol-Opium Tablets contain ⅙ grain of calomelol (colloidal or soluble calomel) and 1/10 grain of opium, and are used in syphilis.

Camphacol is stated to be a condensation product of camphoric acid, formaldehyde and guaiacol, or the camphoric acid ester of methylenediguaiacol. It is a crystalline substance, intended for use especially in phthisis, but also employed in pneumonia, broncho-pneumonia, and cystitis. Dose, 5 to 20 grains; maximum daily dose, 2 drams. It is marketed also as 2½ and 5-grain tablets. See caution under *formaldehyde*.

Camphoid is a substitute for collodion introduced by Martindale, and said to consist of a solution of pyroxylin and camphor in absolute alcohol.

Camphoric Acid Phenetidid is a remedy combining the properties of camphoric acid and phenacetin, and hence used as an antihidrotic and febrifuge. Dose, 8 to 20 grains.

Camphorin is artificial camphor.

Camphoroform is a combination of camphor and iodoform, also known as *iodoform-camphor* or *yellow camphor;* a yellow powder in which the odor of iodoform predominates. It is recommended as a surgical antiseptic, and has also been used in diphtheria, whooping-cough and influenza.

Camphoroxol is a 3 per cent. solution of hydrogen peroxide containing some alcohol and 1 per cent. of camphor to enhance its antiseptic power and at the same time render it more stable. It is used (generally in 10 to 15 per cent. dilutions) in ozena, pharyngitis, otitis and in other affections in which ordinary hydrogen dioxide solution is employed.

Camphossil is the designation that has been applied to a condensation product of camphor and salicylic acid, of Italian origin. The article occurs as a white, crystalline, fatty, deliquescent mass, of camphoraceous odor, almost tasteless, and insoluble in water. It is administered in doses of 8 grains as an antipyretic and internal disinfectant (principally in typhoid fever and infectious diarrhea).

Candol is a dry extract of malt claimed to be unusually rich in diastase, and hence recommended as a digestive addition to tonics. Dose, ½ to 2 teaspoonfuls thrice daily.

Cancroin is a serum introduced by Prof. Adamkiewicz as a remedy in cancer. According to Heermann, it is essentially a carbolized solution of neurine citrate; cancroin II consists of equal parts of cancroin (I) and distilled water; and cancroin III of 1 part of cancroin (I) and 3 parts of distilled water. While the introducer

has reported some remarkable curative effects from the use of his preparation, Nothnagel, von Eiselberg, Poten and others have failed to observe any such action from its employment.

Cannabine Tannate is obtained from Indian hemp, after removal of the ethereal oil by distillation with steam, by extraction with water and precipitation with tannin. It is a brownish powder of slightly bitter but very astringent taste; soluble in alkalinized water or alcohol. It is used as a mild hypnotic and a nerve sedative. Dose, 8 to 15 grains; maximum dose, 20 grains.

Cannonin is a disinfectant mixture of unknown composition.

Capillin is what Mindes calls a condensation product of tannin, chloral hydrate and resorcin, which is intended as a succedaneum for captol.

Caprenalin is what a Philadelphia firm calls its brand of the supposed active principle of the suprarenal capsule: see *adrenalin* for properties, uses, etc.

Capsiphor is a capsicum plaster for dental purposes.

Captol is a condensation product of tannin and chloral. It occurs as a brown, amorphous, hygroscopic powder, which is soluble in hot water or in alcohol; alkalies decompose it. It was introduced by Eichhoff as an antiseborrheal remedy as well as a prophylactic, and is used mostly as a compound spirit (so marketed in this country), consisting of a solution of 2 parts each of captol, chloral hydrate, and tartaric acid, and 1 part of castor oil, in 200 parts of 65 per cent. alcohol.

Capudine is a liquid headache remedy of undivulged composition.

Carboformal is a German disinfectant remedy consisting of carbolic acid and formaldehyde solution. See caution under *formaldehyde*.

Carboformal Briquets ("Glühblocks") are hexagonal coal-briquets containing a cavity filled with para-formaldehyde. When lighted, they glow, whereby the chemical is reconverted into formaldehyde gas.

Carbollysoform is a new disinfectant preparation stated to consist of 2 parts of lysoform and 1 part of crude cresol (Ph. G.), and to be an efficient germicide in 3 per cent. solution.

Carbonol is a white, clear, odorless brand of liquid petrolatum.

Cardine is a liquid extract of cardiac muscle used by Dr. Hammond in chronic affections of the myocardium and in asytole.

Cardiol is said to be an alcoholic extract of squill, lobelia, strophanthus and nux vomica with guaiacol.

Carniferrin (*iron phosphosarcolactate*) is prepared from meat, and contains about 30 per cent. of iron and 1 per cent. of phosphorus in combination. It occurs as a reddish-brown, tasteless powder, soluble in dilute acids or alkalies. It has been recommended as an easily assimilated hematinic for use in anemia and chlorosis. Dose, 1 to 5 grains three times daily. It appears to have been withdrawn from this market.

Carniferrol is an aromatic liquid preparation containing 10 per cent. of meat peptone and 0.4 per cent. of iron.

Carnigen is a soluble nutrient in pulverulent form. According to Denayer, it consists of 52 per cent. of albuminoids, 24 per cent. of meat extractive, and 4 per cent. of meat salines. (It is not to be confounded with carnogen, a liquid preparation of bone-marrow, used as a "blood-builder.")

Carnose is a nutritive extract prepared from yeast and malt.

Caroid is a brand of the active digestive principle of the juice of the papaw (carica papaya), which substance is on the market also under various other trade names. It is active in acid, neutral, or alkaline media, but particularly so in the last-named. Dose, 2 to 5 grains. It is also marketed as tablets in various combinations.

Carol is a mouth-wash similar to the older *odol*.

Carvacrol Iodide will be described under its more usual title of *iodocrol*.

Casanthrol is the name applied by Unna to a mixture of his casein ointment with 10 per cent. of "extractum lithanthracis" (that is, the ether- and benzol-soluble constituents of coal tar). It occurs as a thick emulsion which is soluble in water; applied to the skin, it forms a dry, elastic coating. It is used in eczema, prurigo, etc. Mineral acids, acid salts and other substances that coagulate casein, should not be mixed with it or at most to the extent of not more than 1 per cent.

Cascarin is a substance isolated by Leprince from cascara sagrada and considered by him as the active principle of the drug. It occurs as odorless, tasteless needles, insoluble in water but soluble in alcohol. It is given to adults in doses of 2 to 5 grains, usually in pills; children in proportion.

Casein-albumose Soap is a neutral, superfatted soap recommended by Delbanco as a base for other medicated soaps as well as per se as a dermic in eczema, etc.

Casein-Silver is *argonin*.

Casein-Sodium is a food marketed as "nutrose," under which heading it will be described.

Caseiodine is what Liebrecht calls an iodine derivative of casein, occurring as a white powder that is insoluble in the usual solvents but soluble in dilute alkalies and contains about 8 per cent. of iodine. According to Prof. Kocher, it is of service in goiter.

Caseon is a synonym of *plasmon*.

Cassaripe is the name applied to the inspissated juice of the root of manihot utilissima or bitter cassava, which is used in corneal ulcers and certain other eye diseases (pure or in 10 per cent. ointment).

Casumen is an English food product which, according to Coblentz, consists wholly of casein.

Catharol is a 3 per cent. solution of hydrogen peroxide.

Cayaponine is an alkaloid obtained from cayapona globulosa and credited with purgative properties; nothing further seems to be known about it.

Cearin is an ointment base consisting, according to different statements, of white carnauba wax and liquid paraffin, or of carnauba wax, casein, and liquid paraffin.

Cellotropin (*monobenzoyl-arbutin*), $C_{19}H_{20}O_8$, results from action of benzoyl chloride upon arbutin in neutral solution. It is a white, odorless, tasteless powder; soluble in 1300 parts of water, easily so in alcohol, and insoluble in ether or chloroform. It is intended for use in infectious diseases (especially tuberculosis and scrofula). Dose, 4 to 8 grains 3 times daily.

Cephaeline Hydrochlorate, $C_{14}H_{19}NO_2.HCl$, is the salt of a second alkaloid found by Dr. Paul in ipecac. It occurs as a yellowish powder, soluble in water or alcohol, and is recommended as an emetic in doses of 1/12 to ⅙ grain.

Cephalin is reported to be a mixture of antiprin, roasted coffee, and sodium salicylate; a headache remedy. Dose, 5 to 10 grains.

Cephalopin is an oily extract of fresh nerve substance, containing the myelin, lecithin and other oily constituents of the nerve tissue. It is used subcutaneously in strychnine poisoning; internally in neurasthenia, neuralagia, etc.

Cerebrin, or *opocerebrin*, of Prof. Poehl, is an extract of the gray matter of the brain, used in chorea, hysteria, and other affections of the nervous system and in alcoholism. Dose, 3 to 5 grains three times a day. Marketed also as tablets of 3 and 5 grains each. (It is not to be confounded with the definite nitrogenous, phosphorus-free constituent of brain matter known as "cerebrin," which has the formula $C_{80}H_{160}N_2O_{18}$ and is not used therapeutically.)

Cerebrine is the name given to an antineuralgic mixture consisting essentially of an alcoholic solution of antipyrin, caffeine and cocaine.

Cerevisine is a medicinal yeast, "prepared from the cells of the saccharomyces cerevisiæ at a low temperature and in a vacuum." It is recommended for use internally in boils, tuberculosis, and diabetes, and locally in leucorrhea, vaginitis,

etc. Dose, a teaspoonful, given in water with a little sugar.

Cerolin is described as the fatty substance of yeast, and has been recommended for internal use in furunculosis, acne and the like. It is marketed as 0.1 gram pills, 3 to 5 of which constitute the daily dose.

Cetiacol.—See *palmiacol.*

Cetrarin, or *cetraric acid*, $C_{20}H_{20}O_{11}$, is the bitter principle of Iceland moss (cetraria islandica). It occurs as a white crystalline powder or very small needles, sparingly soluble in water, more freely in solutions of alkali carbonates. It is prescribed chiefly in anemia and chlorosis. Dose, 1 to 3 grains several times a day.

Chelidonine Phosphate and **Sulphate** are salts of the alkaloid of chelidonium, which has the formula $C_{20}H_{19}NO_5+H_2O$. Both occur as white, crystalline powders soluble in water. They are used as mild narcotics, particularly in children—in gastric and intestinal pains; also in gastric ulcer and cancer of adults. Dose (adults'), 1 to 3 grains.

Chibromanco, Chlorbromeco, Chloreusar, and **Chloriokreo.**—See under *nebulates*

Chielen is described by the manufacturers as an oily extract of tulip bulbs,, and extolled in various skin diseases. According to others, it is essentially a superfatted, strongly alkaline soda soap, and "chielen cream," a mixture of zinc oxide, talcum, chielen, wool fat, tincture of benzoin, water and glycerin.

Chiferrin or *chinaferrin* is a tonic preparation said to contain iron in organic combination and the active principles of cinchona and condurango.

Chinalgen is *quinalgen.*

Chinaphenin, chemically *quinine carbonic-acid phenetidid*, is obtained by the reaction between quinine and para-ethoxyphenyl isocyanate or para-ethoxyphenylcarbaminic acid chloride. It occurs as a white, tasteless powder, readily soluble in alcohol, ether, or chloroform, but sparingly soluble in water. It forms salts with acids. Prof.

von Noorden places it between quinine and acetanilid or phenacetin in promptness of action as an antipyretic. He has used it in whooping-cough, typhoid fever, malarial neuralgia, etc. It is given in the same doses as quinine sulphate.

Chinaphtol, or *quinine beta-naphtol-monosulphonate*, will be described under *quinaphtol*.

Chinaseptol, or *quinaseptol*, is better known by the trade name *diaphtol*, and will be referred to under that title.

Chinoform is said to be obtained by precipitating a cinchona extract with formaldehyde and concentrated hydrochloric acid. It constitutes an antiseptic compound of cincho-tannic acid and formaldehyde. See caution under *formaldehyde*.

Chinoformin is the trade name of *formin* (hexamethylenetetramine) *quinate*, which compound is better known here as *chinotropin;* which see.

Chinopyrine (*quinine-antipyrin*) is what Dr. G. Santesson calls a combination of 3 parts of quinine hydrochlorate and 2 parts of antipyrin. It occurs as a white powder, readily soluble in water and hence recommended for subcutaneous use in malaria.

Chinoral is described as an oily, very bitter fluid, soluble in water or alcohol, and consisting chiefly of chloral and quinine. It is used internally in delirium tremens, and externally as an antiseptic. Dose, 5 to 15 grains.

Chinosol is the trade name applied to *potassium oxyquinoline-sulphate* or *oxyquinoline-alum*, $C_9H_6N.OSO_3K$. It occurs as a yellow powder, of faint aromatic odor and unpleasant astringent taste; soluble freely in water, insoluble in alcohol or ether. It is intended for use as a surgical and household disinfectant chiefly, but has been used in a very small way internally in gastro-intestinal diseases. It is applied in 1 in 100 to 1 in 2,000 solutions. Alkalies decompose chinosol; and with corrosive sublimate, iron and other metallic salts it forms highly-colored compounds having staining properties. It is marketed also as tablets of 0.25 gram and 1 gram.

Chinotropin (*urotropin* or *hexamethylenetetramine quinate*) occurs as a white powder readily soluble in water. It is employed in gout and bacilluria, similar to the older urotropin (formin, aminoform, cystogen, hexamethylenetetramine, etc.), but is said to liberate formaldehyde in the system more freely than the latter. Dose, 10 to 20 grains two or three times daily, usually taken in a glassful of plain or carbonated water. See caution under *formaldehyde*.

Chirol is a yellowish fluid stated to consist of a solution of certain resins and fatty oils in a mixture of readily boiling alcohols and ethers. It is intended mainly as a hand disinfectant in surgical and obstetrical practice. Applied to the skin, it forms a thin impermeable coating.

Chloral-Acetone-chloroform is described under *cloran*.

Chloral-Acetophenone-oxime forms colorless crystals that are readily soluble in alcohol or ether but insoluble in water. It is recommended as an antispasmodic and nerve sedative.

Chloralamide is the trade name for *chloral-formamide*, or *formamidated chloral* Ph. G. IV, of the formula $CCl_3.CH(OH).CONH_2$. It is a compound of equal molecules of anhydrous chloral and formamide, and occurs as colorless, odorless, slightly bitter crystals that are soluble in about 20 parts of water and 1½ parts of alcohol, and decomposed by hot solvents and alkaline liquids. It is prescribed chiefly as a hypnotic. Dose, 15 to 45 grains; maximum dose, 1 dram. Marketed also as an elixir containing 30 grains to the fluid ounce. See caution under *formaldehyde*.

Chloral-Antipyrine.—See *hypnal*.

Chloralbacid is defined as a chlorine substitution product of albumin, containing 3 per cent. of chlorine intramolecularly combined. It occurs as a yellowish-white powder, easily soluble in water and without unpleasant odor or taste. It is used in gastro-intestinal affections characterized by insufficient secretion of hydrochloric acid or abnormal formation of organic acids, or by insufficient intestinal absorption or peristalsis.

Dose, 15 to 30 grains before meals. Marketed also as 0.5 gram tablets.

Chloral-Formamide, or *chloral formamidated*, is described under *chloralamide*.

Chloral-Hydroxylamine.—See *chlorosonine*.

Chloralia is a liquid hypnotic, sedative and sudorific preparation, containing in each fluid ounce 5 grains of kalarine, 96 grains of chloral hydrate, and 1 grain each of extracts of conium, hyoscyamus and cannabis indica. Dose, 30 to 60 minims.

Chloralimide (not chloralamide), or *trichlorethylidene-imide*, $CCl_3.CH:NH$, results from heating chloral-ammonium, or chloral hydrate with dry ammonium acetate. It forms white, odorless, tasteless crystals, soluble in alcohol, ether, or chloroform; insoluble in water. It was introduced as an agreeable hypnotic and analgesic especially in insomnia due to headache or fever, but it has been practically abandoned in this country. Dose, 15 to 45 grains; maximum daily dose, 90 grains.

Chloral-Orthoform is a compound of molecular quantities of chloral and meta-amido-para-oxybenzoic ester (orthoform, or [formerly] orthoform "new"). It forms yellow, tasteless crusts that can easily be reduced to powder; soluble in ether or hot alcohol, insoluble in water. It is intended as a hypnotic. Dose not stated.

Chloralose, chemically *anhydro-gluco-chloral*, $C_8H_{11}Cl_3O_6$, is obtained by heating anhydrous chloral and glucose together. It occurs as small white crystals, of disagreeable, bitter taste; readily soluble in alcohol or ether, sparingly so in water. It has been recommended as a hypnotic Dose, 3 to 10 grains; maximum dose, 12 grains.

Chlorethoform (*chloraethoform*) is the name proposed for pure chloroform admixed with ¼ per cent. of ethyl chloride, which addition is claimed to yield a preparation less dangerous than chloroform alone as a general anesthetic.

Chloretone is the American trade name for *acetone-chloroform* or *tertiary trichlorbutyl alcohol*, in crystalline form. It results from the inter-

action of chloroform, acetone, and an alkali; and occurs as small, white crystals, of camphoraceous odor and taste, soluble in strong alcohol or glycerin, very sparingly so in water. It is employed chiefly as a hypnotic, and as an anodyne and sedative (chiefly in nausea, seasickness, and gastralgia). Dose, 5 to 20 grains. Marketed also in 3- and 5-grain capsules, as an inhalant, and as boro-chloretone.

Chlorobrom is an English specialty consisting essentially of an aqueous solution of potassium bromide and chloralamide, and used mainly in seasickness, but also as a hypnotic. Dose, a tablespoonful. See caution under *formaldehyde*.

Chloro-bromon, originally called *bromo-chloron*, is defined as a hypobromo-chlorite of lime of the formula $BrClO_2Ca$; an unstable, alkaline compound, marketed as a concentrated solution (in 20 c.c. vials) "containing in their nascent condition bromine, chlorine and free oxygen." It is used as a germicide and antiseptic—topically pure or diluted, and internally in the dose of several glassfuls per day of a dilution of 20 c.c. with 1 gallon of lime water.

Chloroiodolipol is defined as a chlorine substitution product of phenol, creosote and guaiacol, which is used by inhalation in chronic affections of the respiratory tract.

Chlorol is a French liquid disinfectant consisting in the main of corrosive sublimate, sodium chloride, hydrochloric acid and copper sulphate, in aqueous solution.

Chlorolin is a liquid disinfectant containing about 20 per cent. of mono- and trichlorphenol and used in ½ to 3 per cent. solutions on wounds. Marketed also as pills each containing 1/30 grain of chlorphenol for employment in tuberculosis.

Chlorosonine (*chloral-hydroxylamine*) is a compound of chloral hydrate and hydroxylamine, which separates into its components in the presence of water. It is intended as a hypnotic, but definite data are yet wanting.

Chlorphenol Salicylate.—See *chlorsalol*.

Chlorsalol (*chlorosalol* or *para-chlorsalol*), $C_6H_4.OHCOOC_6H_4Cl$, results from reaction between phosphorus pentachloride and a mixture of para-chlorphenol and salicylic acid. Chemically it may be defined as *salicylic-acid-para-chlorphenol ester*. It is used in cystitis, diarrheas, etc., in place of salol. Dose, 1 to 1½ drams in the course of a day.

Cholelithmin (Marpmann) is essentially a weak alcoholic solution of the salts and albuminous constituents of bile. It is used in gall-stone colic.

Cholelithon is a "gall-stone salt" the exact composition of which is not stated.

Cholelithurin is a preparation of the fresh bile of animals fed with the biliary secretion; essentially a weak-alcoholic solution of the bile acids and albuminoids. It is intended for use in gallstone colic.

Cholelysin is said to be a mixture of 10 to 15 grams of eunatrol (sodium oleate), 30 drops of pineapple essence, 5 grams of validol, 10 grams of tincture of valerian, and 200 grams of peppermint water.

Cholera Serum will be referred to under *serums*.

Chologen is the name applied to three different preparations, in tablet form, known respectively as chologen 1, 2, and 3. These are said to be different "combinations of mercury with vegetable laxatives and cholagogues (podophyllin) and carminative and antispasmodic drugs and oils (melissa, camphor, caraway)." They are intended for use in gall-stone disease.

Chresylatin is an alkaline, aromatic liquid, said to contain resin soaps, naphtalin and cresol, and heralded as a succedaneum for carbolic acid.

Chroatol is defined as *terpine iodhydrate*, and is used in certain skin diseases.

Chrysarobin Oxidized is obtained from the action of sodium peroxide upon chrysarobin suspended in water. It occurs as a dark-brown powder, soluble in benzene, chloroform and hot alcohol, but insoluble in water. It is employed by

Unna like chrysarobin, in 5- to 10-per-cent. ointments; it is considered milder in action than chrysarobin.

Chrysoform, or *dibromo-diiodo-hexamethylenetetramine*, occurs as a fine, yellow powder, of a faint iodine odor, insoluble in the ordinary solvents. It is used in France as a wound antiseptic, chiefly in veterinary medicine. See caution under *formaldehyde*.

Chrysolein is the name of a French preparation of sodium fluoride used as an antiseptic.

Chuchuarine is an alkaloid resembling strychnine, obtained from semecarpus anacardium, and occurring as white crystals of pungent taste. It is believed to possess aphrodisiac properties; but no definite data are extant.

Cicutine Hydrobromate is a synonym of *coniine hydrobromate*.

Cinchonine Iodosulphate, also known as *antiseptol*, *iodized cinchonine sulphate*, and *cinchonine herapathite*, occurs as a light, reddish-brown powder, containing 50 per cent. of iodine, soluble in alcohol or chloroform but insoluble in water. It has been recommended as a substitute for iodoform internally as well as externally. Dose, 1 to 5 grains.

Cinchonine Sulphocarbolate and Cinchonine Sulphocresote have been introduced as antipyretics, antiseptics, and antiperiodics. Nothing further seems to be known about them.

Cineol is a synonym of the official *eucalyptol*.

Cineol Arsenate is a very recent arsenical preparation combining the alterative properties of arsenic with the antiseptic virtues of eucalyptol (cineol). Dose-statements are wanting.

Cinnamine is not derived from cinnamon oil or from cinnamic acid, but is a tonic mixture, the exact composition of which is not divulged.

Cinnamyl-Eugenol (*eugenol cinnamic ester*), $C_6H_3.C_3H_5.O.CH_3.OCO.(CH)_2.C_6H_5$, forms colorless crystals, very slightly soluble in water, more freely so in alcohol, ether or chloroform. It is employed chiefly in phthisis. Dose, 5 to 10 grains several times daily.

Cinnamyl-Meta-cresol.—See *hetocresol.*

Cinnamyl-Quinine Hydrochlorate is the salt of the cinnamic ester of quinine, and is intended as an antipyretic and antiperiodic. No further data appear to be extant.

Citarin, chemically *sodium anhydromethylene citrate,* is a white, slightly hygroscopic powder, of not unpleasant acidulated saline taste; soluble in 1½ parts of water, but insoluble in alcohol or ether. It has been recommended as a solvent of uric acid deposits in gouty conditions. It liberates formaldehyde in the blood, and this is said to form very soluble combinations with the uric acid present in the system and thus favor its elimination; but this entails a serious risk as the formaldehyde may be converted in the system to formic acid, and it has been suggested that the deadly and sight-destroying power of wood alcohol is due to its decomposition in the system into formic acid. See further under *formaldehyde.*

Citon Tablets, *white,* contain 0.1 gram of phenolphtalein, 0.5 gram of sugar and 0.01 gram of menthol. The *brown* consist of 0.1 gram of phenolphtalein, 0.5 gram of sugar, 0.002 gram of vanillin and 0.1 gram of cacao. They are taken as laxatives. Dose, 1 to 5.

Citramin-oxyphen is a trade name for *hexamenthylenetetramine methylene citrate,* better known as *helmitol.* See caution under *formaldehyde.*

Citramine Oxyphenylate (perhaps identical with "citramin-oxyphen," according to Zernik, is a mixture of equal parts of hetralin (hexamethylene-tetramine-resorcin) and helmitol (hexamethylene-tetramine methylene-citrate). Dose, 8 to 20 grains. See caution under *formaldehyde.*

Citric-Acid Triparaphenetidin is *citrophen.*

Citronal Pills contain per 100, according to the manufacturer, 0.5 gram of quinine hydrochlorate, 4 grams of extract of huckleberry leaves, 10 grams of citric acid, 6 grams of buckthorn extract, and powdered liquorice and liquorice extract q. s. They are used in gout, rheumatism, etc. Dose, 5 pills thrice daily.

Citro-Paraphenetidin is the chemical designation for *apolysin; neutral citro-phenetidin* the chemical equivalent of *citrophen.*

Citrophen, or *neutral citro-phenetidin, paraphenetidin citrate,* or *citric-acid triparapheneti-din,* $(C_6H_4.OC_2H_5.NH.CO)_3.C_3H_4.OH$, occurs as a white, crystalline powder, of tart taste, and soluble in 40 parts of water. It was introduced as a succedaneum for phenacetin in all its uses. Dose, 8 to 15 grains; maximum daily dose, 90 grains. Mineral acids decompose it.

Citrovanille is an antineuralgic preparation containing iso-pyramidon citrate as its active component.

Citrozon is described as a mixture containing in 100 parts 30 effervescing soda powder and 1/200 vanadic acid, together with sodium chloride and sodium citrate. It is said to stimulate metabolism. Dose, a teaspoonful 6 to 8 times daily.

Citrurea is the trade name applied to tablets consisting of urea, citric acid and lithium bromide.

Cittosol is an ichthyol emulsion not completely described.

Clavin is a proximate principle of ergot which has been isolated by Prof. Ernst Vahlen, of the University of Halle, Germany. The formula, $C_{11}H_{22}N_2O_4$, has been assigned to it, and it occurs as a microcrystalline substance soluble in two parts of water, insoluble in absolute alcohol, ether or benzin. It does not form salts. According to the discoverer, clavin represents the full oxytoxic virtue of ergot, causes no irritation when injected hypodermically, keeps for a long time in the dry state, and its solutions can be boiled without decomposition setting in. Its aqueous solutions, however, on keeping in a warm place for any length of time, develop a fungous growth. It is marketed also as *clavin-salt tablets,* each containing 0.02 gram of clavin and 0.08 gram of sodium chloride, and intended specially for subcutaneous use dissolved in 1 c. c. of water; and as *clavin-sugar tablets,* each carrying 0.02 gram of clavin

and intended for use by the mouth. Dose, ⅓ to 1 grain.

Cloran (*chloral-acetone chloroform*) is defined as a condensation product of chloral hydrate and acetone chloroform (chloretone), and occurs as white crystals of nonpronounced camphoraceous taste, easily soluble in diluted alcohol and soluble in 100 parts of water; sulphuric acid decomposes it into its components. It is advertised as a hypnotic. Dose, 8 to 20 grains.

Cocaine-Aluminium Citrate is described as a compound of 3 molecules of aluminium citrate and 1 molecule of cocaine alkaloid; difficultly soluble in water, and acting first as an astringent then as an anesthetic. Further data are wanting.

Cocainol does not contain cocaine, as its name would seem to imply, but anesthesin (see this). It is marketed as "drops," "lanolin," "dusting-powder," etc.

Cocapyrine is said to be a mixture of 1 part of cocaine hydrochlorate and 99 parts of antipyrine, which is marketed in 3-grain tablets intended for use in throat affections.

Codesol is a syrup containing 2 per cent. of guaiacol and 0.2 per cent. of codeine, and employed in coughs and other respiratory diseases. Dose, 1 to 2 teaspoonfuls.

Colaetina is the collective name given to lanolin-caoutchouc plasters made by a firm in Vienna.

Colalin is described by the manufacturers as "the amorphous active principle of bile"; probably amorphous *cholalic acid*, $C_{24}H_{40}O_5$. It is marketed only as dosimetric granules, which are used in hepatic torpor and as a solvent of gall stones; dose, 2 to 10, preceded by or combined with an active cathartic.

Colchicine Salicylate is not a true salt of colchicine, as this principle is not known to combine with organic acids, but rather a mixture containing 20 parts of colchicine to 7 parts of salicylic acid; a yellow powder, soluble in water, alcohol, or ether. It has been employed by Thompson and

Tobias in gout and rheumatism. Dose, 1/100 to 1/60 grain every four hours.

Coley's Fluid is a mixture of erysipelas and prodigiosus toxines, recommended by Dr. M. B. Coley for the treatment of malignant neoplasms, particularly sarcoma. It is injected into the tumor itself or hypodermically, in doses of ½ to 2 minims or more (sufficient to produce appropriate reaction).

Collaform is a pulverulent compound of formaldehyde and gelatin, analogous to glutol but made by a Swiss firm. See caution under *formaldehyde*.

Collargol (*colloidal silver* or *soluble silver*) is an allotropic form of metallic silver, and occurs as a black crystalline substance, completely soluble in about 20 parts of distilled water, yielding a solution which keeps for quite some time without especial protection from light or heat. Though used to a small extent in certain skin, surgical and eye diseases, and infectious gastrointestinal disturbances, its chief employment is intravenously in the treatment of septicemia and pyemia; 1 to 2 grains in 2- to 5-per-cent. solution every 12 to 24 hours. Topically it is used mostly as "unguentum Crédé" (see this); per os, in solution or pills, ⅛ to 1 grain daily. To prepare collargol solutions, put the drug into a perfectly clean brown bottle, add the necessary amount of distilled water, and allow to stand until softened; then shake vigorously until complete solution is effected. It need not be filtered. It should have a clear brown color; if gray and turbid, it is decomposed. A very warm temperature is apt to decompose it.

Collaurin is a trade name for *colloidal gold*, which is administered internally in cancer, syphilis and scrofula in doses of ½ to 1 grain.

Colligamen is a collective term applied to medicated adhesive bandages introduced by E. Dieterich. Mull bandages are coated on the one side with different glue-glycorin solutions. For use, the bandages are quickly immersed in cold water, applied with the adhesive surface upon the part to be dressed, and covered with cotton or an

ordinary bandage. They are employed in place of Unna's glue dressings.

Collosin, *acetone-collodium,* or *filmogen,* will be described under the last-named heading.

Colloxylin is a synonym of *pyroxylin* (soluble guncotton).

Coniine Hydrobromate (*cicutine* or *conicine hydrobromate*), $C_8H_{17}N.HBr$, occurs as white needles or powder, soluble in 2 parts of water or alcohol and soluble also in chloroform. It is employed as an antispasmodic and antineuralgic, chiefly in traumatic tetanus, sciatica and whooping-cough. Dose (per os), 1/60 to 1/30 grain three or four times daily; children, 1/600 to 1/60 grain. Hypodermically (in tetanus) as much as 1/20 to ⅛ grain has been injected at a time. The antidotal treatment generally consists in giving tannin, then emetics, enemas of vinegar, strychnine or atropine hypodermically, etc.

Contratussin is a compound elixir of thyme, used in whooping-cough and bronchial catarrh.

Convallamarin, $C_{25}H_{44}O_{12}$, is a glucoside from convallaria majalis, occurring as an amorphous, yellowish powder, soluble in water or alcohol. It is used as a cardiac stimulant and a diuretic. Dose, ¾ to 1 grain, three to six times daily; hypodermically, 1/12 to ⅓ grain. Maximum dose, 1 grain single, 5 grains daily. Antidotal measures: Emetics, stomach pump, camphor, wine, etc.

Convulsin is a saccharated extract of eucalyptus, introduced by Kowalewski, for use in coughs, asthma, etc. Dose, a tablespoonful.

Copper Arsenite a few years ago came to the fore as a remedy in cholera infantum and other infectious diarrheas; 1/120 grain is administered in water every half hour until relieved, then half-hourly. It is also prescribed occasionally in dymenorrhea and in whooping-cough. Maximum dose, 1 grain.

Copper Citrate, like the preceding, is not a new introduction, but has only recently been employed therapeutically. Two years ago Dr. F. von Arlt recommended it as a substitute for copper sulphate in trachoma, and it is also known as

cupri-citrol. It forms a green powder, very slightly soluble in water. It is prescribed as 5- to 20-per-cent. dusting-powders, pencils or ointments.

Copper Cyanide, a light, whitish powder almost insoluble in water or alcohol but soluble in ammonia water or solution of potassium cyanide; was introduced by the famous ophthalmologist Galezowski as a remedy in the treatment of trachoma.

Copper Methylene-Disalicylate.—See *cuformasal*.

Copper Nucleinate or Nucleide.—See *cuprol*.

Copper Sulphocarbolate (*para-phenol-sulphonate*), also known as *cupriaseptol*, $Cu(C_6H_3S_4)_2 + 6H_2O$, occurs as green crystals, soluble in water or alcohol. Gawalowski recommends it as an astringent antiseptic. It is used mainly in ¼- to 1-per cent. solutions.

Copra Oil, a suppository base, is probably cocoanut oil from which the constituents with low melting-points have been gotten rid of.

Cordol or *tribromsalol*, $C_6H_3.C_7H_3Br_3O_3$, is an intestinal antiseptic and antirheumatic that occurs as a crystalline powder insoluble in water and only slightly soluble in alcohol or ether. Dose, 8 to 20 grains three or four times daily.

Cordyl is *acetylated cordol*, of no therapeutic importance.

Coriamyrtin, $C_{20}H_{28}O_{10}$, is a bitter principle obtained from the leaves and fruit of coriaria myrtifolia. It forms colorless crystals, soluble in water, alcohol, chloroform or ether, and is used in conditions of collapse, particularly those due to weakening of the respiratory and vascular centers. Dose, 1/120 to 1/60 grain, subcutaneously.

Cornesin, extolled for use in eye diseases, is stated to be simply cod liver oil or seal oil.

Cornutine Citrate is the salt of an alkaloid of ergot, which, according to Kobert, has the active contractile principle of the crude drug, but, according to Tanret, is a more or less decomposed ergotinine. It is prescribed as an oxytocic and hemostatic in obstetric practice, but latterly more often in spermatorrhea. It occurs as a

brownish-black, very hygroscopic powder, soluble in alcohol, sparingly and incompletely soluble in water. Dose, in hemorrhage, 1/20 to ⅛ grain; in spermatorrhea, 1/20 grain twice daily, in pills. Maximum daily dose, ⅛ grain.

Cornutol is described as a stable, aseptic, non-irritating liquid preparation of ergot, especially adapted for hypodermatic use, and 2½ times the strength of the official fluid extract of ergot. Dose, 10 to 30 minims. Marketed also in 2 c.c. hermetically sealed bulbs.

Coronillin is a glucoside contained in the seeds of coronilla scorpioides; a yellow powder, soluble in water or alcohol, and employed as a heart-tonic and diuretic analogous in action to digitalin. Dose, 1 to 2 grains 4 to 6 times daily. Maximum daily dose, 10 grains.

Corticin is a new trade name for the quinine and caffeine compound heretofore known only as *basicin*. See the latter title.

Coryl is a solution of methyl chloride in ethyl-chloride, analogous to *anaesthol* or *anaestile*.

Cosaprin (*sodium acetyl-sulphanilate*), C_6H_4-$NH(CO.CH_3).SO_3Na$, which was introduced a few years ago as an innocuous substitute for antifebrin, which could be employed also hypodermically, occurs as a white, hygroscopic, crystalline substance, freely soluble in water, less readily so in alcohol, and almost insoluble in ether. Dose, 10 to 30 grains. Little has been heard of it since its introduction.

Cotargit is a double salt of cotarnine hydrochlorate (stypticin) and ferric chloride; ruby-red crystals, freely soluble in water and intended for use as a styptic.

Cotarnine Hydrochlorate is the chemical name of the article known in the trade as *stypticin;* see the latter heading.

Cotarnine Phtalate is the chemical designation of the hemostatic marketed as *styptol*, which see.

Cotoin is the active principle of true coto bark; a yellow powder of pungent taste, and soluble in alcohol, ether, or chloroform, but very slightly so

in water. It is used some to arrest night-sweats, but chiefly as an antidiarrheal in dysentery, etc. Dose, 1½ to 3 grains, in wafers; maximum dose, 5 grains single, 15 grains per day. Contraindicated when there is tendency to intestinal hemorrhage.

Crealbin or *creolalbin* is a compound of creolin and albumin intended as a form of administering creolin internally. It is a brown powder, representing 50 per cent. of creolin, and used as an intestinal disinfectant and astringent in doses of 5 to 15 grains.

Crelium is a cresol-soap solution something like lysol.

Creoform or *kreoform* or *creosoform* or *kreosoform* is a condensation product of creosote and formaldehyde; a greenish-yellow, odorless, tasteless powder, becoming light-yellow on exposure to air; insoluble in water or ether, slightly soluble in alcohol, and readily soluble in a mixture of alcohol and chloroform and in alkaline solutions. It is intended to replace creosote in tuberculosis and diarrheas. See caution under *formaldehyde*.

Creosal or *tannosal* is a combination of creosote and tannin. It occurs as a brown, hygroscopic powder, readily soluble in water, alcohol or glycerin, and containing 60 per cent. of creosote. It is used as a substitute for creosote in tuberculosis, also as an intestinal astringent (especially in phthisical diarrhea). Dose, 10 to 30 grains. Marketed as 6.6 per cent. solution and as 5-grain pills.

Creosapol is a disinfectant analagous to the well-known creolin.

Creosin is a yellow liquid said to contain creosote, iodine, calcium hypophosphite, and balsam of peru as the therapeutically active components; it is used in phthisis.

Creosoform or *kreosoform* is the same as *creoform*.

Creosolid or *kreosolid* is the magnesium compound of the bivalent phenols of creosote, and forms a white powder of slight odor and taste. It is usually given in doses of 8 grains four times

daily as a substitute for creosote or guaiacol.

Creosotal is a trade name for the so-called *creosote carbonate*, which see.

Creosote Camphorated is a compound of equal molecules of creosote and camphor, which is used chiefly as a sedative. Dose, 3 grains three or four times daily, in capsules (so marketed).

Creosote Carbonate, so-called, but which should be designated carbonated creosote, being a mixture, is better known as *creosotal*. It occurs as a yellow, viscid, clear, oily liquid, of faint odor and slightly bitter taste; insoluble in water, but soluble in alcohol, ether, chloroform and oils. It contains about 92 per cent. of creosote. It is used principally in phthisis. Dose, 1 to 4 drams daily.

Creosote Oleated. See *oleocreosote.*

Creosote Phosphate, so-called, will be referred to under *phosote*, and **Creosote Phosphite** under the heading *phosphotal.*

Creosote Tannate, so-called, is described under *creosol* and **Creosote Tannophosphate**, so-called under *taphosote.*

Creosote Valerianate, so-called, is better known as *eosote* and will be described under that heading.

Creosotide is said to be a combination of creosote and iodine. It is usedly chiefly in tuberculosis, scrofula, enlarged glands, etc. It forms a brownish powder of weak creosote odor and taste and insoluble in water; iodine content, 25 per cent. Dose, ¼ to 1 grain with meals. It is marketed only as ¼ and ½-grain sugar-coated tablets and as compound tablets.

Creosotine is a palatable preparation of beechwood creosote containing 1 minim of this drug in each fluid dram. Dose, a teaspoonful to a tablespoonful or more three times a day.

Cresegol is *mercury ortho-nitro-cresol-para-sulphonate;* a brownish-red, readily soluble powder intended for use as a surgical disinfectant.

Cresolin is a mixture of cresol with resin soap, and is hence chemically between creolin and lysol. It is employed as a disinfectant.

Cresol Iodide (*ortho-cresol iodide*) will be described under *traumatol*.

Cresylone is a liquid disinfectant containing 50 per cent. of cresylic acid (cresol), making a clear solution with water in all proportions. It is used chiefly as a surgical antiseptic and deodorant.

Crurin is the trade name for *quinoline-bismuth sulphocyanide* (rhodanide), of the formula $(C_9H_7N.HSCN)_2Bi(SCN)_3$. The drug occurs as a reddish-yellow, stable powder of non-pronounced quinoline odor; insoluble in water, alcohol or ether. It is prescribed as a siccative antiseptic, chiefly in ulcers of the leg, in 20- to 50-per-cent. dusting-powders; in 0.5-per-cent. suspension in water with a little glycerin it is occasionally employed in gonorrhea. Marketed as a 50-per-cent. dusting-powder (with starch).

Cryogenine or *kryogenin*, chemically *metabenzamino-semicarbazide*, occurs as a white, odorless, bitterish powder soluble in alcohol, chloroform, or ether and in about 40 parts of water. It has been recommended by several French physicians, in doses of 5 to 15 grains, as an antipyretic in phthisis and typhoid fever.

Crysol is a product analogous to *lysol*.

Crystalline or *kristallin* is a protective similar to collodion. It is said to consist of pyroxylin (1), methyl alcohol (4), and amyl acetate (15). A flexible modification is obtained by adding castor oil (5) and balsam of fir (10). The same name has been given to a liquid resembling listerine. Methyl alcohol should be avoided in external as well as internal preparations, as it possesses deadly and sight-destroying power. See under *formaldehyde*.

Crystallose is a brand of crystalline, soluble saccharin (sodium-benzoylsulphonicimide).

Cuformasal is the copper salt of formasal (methylene-disalicylic acid), occasionally prescribed in ulcerative diarrhea and venereal ulcers or gonorrhea. Dose, 3 to 6 grains. See caution under *formaldehyde*.

Cupragol is a compound of protein and cop-

per, intended for use as an astringent and germicide.

Cupratin is a copper-albumin compound containing 6.4 per cent. of copper and stated to be non-toxic alterative and nervine; a brown, pulverizable mass, insoluble in water. Dose, not stated, but probably ½ to 1 grain thrice daily.

Cupriaseptol is what Dr. Gawalowski called *copper sulphocarbolate* (phenolsulphonate); see this.

Cupricin.—See *copper cyanide.*

Cupricitrol is a fanciful name applied to *copper citrate*, under which heading it is here described.

Cuprohemol or *cuprated hemol* is hemol with 2 per cent. of copper organically combined. It occurs as a dark-brown, insoluble powder, and is used in place of the older copper compounds in tuberculosis, scrofula, etc. Dose, 1½ to 3 grains thrice daily. Maximum dose, 8 grains.

Cuprol (*copper nucleinate* or *nucleide*) is defined as a chemical compound of copper with nucleinic acid, containing 6 per cent. of copper. It forms a green powder, soluble in water; its solutions do not coagulate albumin and are not precipitated by alkalies. It is employed pure or in 10-per-cent. solution as an astringent and antiseptic, largely in eye diseases.

Curaril is a preparation of curare, employed subcutaneously in tetanus. Dose, 2 c. c. increased every 2 or 3 hours, if no effect is produced, by 0.2 c. c. until effective, which dose is then repeated as necessary (every four hours or so). Boehm asserts that it is practically a ½ per cent. solution of curare.

Curarine, also known as *tubocurarine*, is the alkaloidal principle of curare (tubocurare). It forms a brown, deliquescent powder, soluble in water and alcohol, and recommended by Hoffmann and Hacke in tetanus. Dose, hypodermically 1/60 to 1/12 grain. The antidotal treatment usually consists of applying atropine, strychnine, artificial respiration and stimulants.

Cutal is *aluminium boro-tannate*, a light-brown powder containing 76 per cent. of tannic acid, 13.23 of alumina, and 10.71 of boric acid; insoluble in water, soluble in solutions of tartaric acid. It is used mainly as an astringent and antiseptic in skin diseases; pure or diluted, or as ointment. With tartaric acid it combines to form *soluble cutal* (*aluminium boro-tanno-tartrate*), which is used in solution in certain skin diseases, gonorrhea, etc.

Cutolin is a styptic pencil made of aluminium biborate, used for checking minor hemorrhages.

Cyllin is described as a creolin four times as concentrated as Pearson's creolin; prepared in London.

Cypridol is described as "a 1-per-cent. solution of mercuric iodide in an aseptic oil." It is used in syphilis. Marketed in capsules containing 1/32 grain of H_2I_2, and in graduated tubes for subcutaneous injections.

Cyssatite is a species of infusorial earth.

Cystamine and **Cystogen** are trade names for *hexamethylenetetramine*.

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Damholid is a hemoglobin preparation used in hematuria of cattle. Damholid *liquid* contains 40 per cent. of hemoglobin and a little carbolic acid. Dose, 25 c.c. Must be kept in a cool place. Damholid I is a granular, blackish-brown, odorless powder, nearly completely soluble in 8 parts of water. Damholid II is a fine, brownish-red powder more difficultly soluble than the No. I. Dose of the two latter, 10 grams in solution.

Davosin, used abroad in various pulmonary affections, is said to consist essentially of chocolate containing 5 per cent. of guaiacol carbonate.

Decalcifying Tablets ("Entkalkungstabletten"), employed in arterio-sclerosis, contain per dose 0.5 gram of sodium chloride, 0.05 gram of sodium sulphate, 0.02 gram of sodium carbonate, 0.02 gram of sodium phosphate, 0.02 gram of mag-

nesium phosphate, and 0.05 gram of calcium glycerinophosphate. Dose, one to several tablets.

Deciquor is a stable, tenfold solution of peptonized iron and manganese, from which the ordinary solution is made by adding to each 100 grams the same quantity of alcohol and 800 grams of water.

Delpho-curarine is an alkaloid discovered by G. Heyl in various species of delphinium but especially in delphinium scopulorum. Dr. A. Lohmann has made physiological experiments with the *hydrochlorate* (a yellowish-white, amorphous powder, readily soluble in water or alcohol), and states that it is calculated to supersede the commonly unreliable curare therapeutically; clinical data are yet wanting.

Dercin Oil is the name now applied to what has been recently described as *floricin oil*.

Derival is a mixture of spirit of mustard, spirit of ammonia, and oil of turpentine, which is used as a liniment in rheumatism.

Dermalin is an ointment-base analogous to lanolin.

Dermasot is not a skin remedy but a preparation for use in excessive sweating of the feet and consisting (according to Weber) essentially of a solution of aluminium acetate, colored with fuchsine and odorized with butyric or acetic ether.

Dermatin is a toilet powder consisting of salicylic acid, starch, talcum, silicic acid and alumina; also a substitute for gutta-percha tissue.

Dermatol is described under its chemical name, *bismuth subgallate*.

Dermocrucin is defined as an ointment containing 50 per cent. of "Kreuznacher Mutterlauge" salt.

Dermogen is a faintly yellowish, odorless, tasteless, water-insoluble powder, said to contain 55 per cent. of zinc peroxide (ZnO_2) and to give off oxygen on contact with wound surfaces which acts as a disinfectant and stimulant.

Dermol, though defined by Trojescu as *bismuth chrysophanate*, $Bi(C_{15}H_9O_4)_3Bi_2O_3$, appears in reality to be a mixture of chrysophanic acid and bismuth hydroxide. It occurs as a yellow, amorphous powder, insoluble in the ordinary solvents. It is used as a drying antiseptic in skin diseases (especially psoriasis), in 5- to 20-percent. ointments. It has not met with much favor. Latterly a complexion cream has been placed upon this market under the name "dermol" by a Chicago firm.

Dermosapol is a superfatted soap that readily takes up creosote, potassium iodide, thiocol, and other medicaments and favors their absorption through the skin. It thus forms the basis of a number of dermosapol preparations containing different active drugs.

Dermozone is a lanolin and hydrogen peroxide toilet cream.

Desichtol is a deodorized ichthyol obtained by Helmers by passing steam through ichthyol, whereby the volatile oil (about ½ per cent) is driven off. Physically it resembles ichthyol, but whether it has the same therapeutic virtues is an open question.

Desinfectin, a brownish-yellow liquid miscible with water, is said to be prepared from the residues left in the distillation of crude naphta (masut). It is intended as a general disinfectant.

Desodor is a mouth-wash containing formaldehyde as its important ingredient. See warning under *formaldehyde*.

Desoxy-alizarin is *anthrarobin*, which see.

Dextroform is a condensation-product of dextrin and formaldehyde, occurring as white, almost odorless and tasteless powder, soluble in water or glycerin but insoluble in alcohol, ether or chloroform. It is intended as a wound antiseptic like iodoform, and has been recommended by Prof. Claassen in gonorrhea in 2½ to 5 per cent. solution. See caution under *formaldehyde*.

Dextro-saccharin is said to be a mixture of glucose and saccharin.

Diabetic Serum.—See under *serums.*

Diabetin is a trade name for *levulose*, which a few years ago came into vogue as a substitute for cane sugar in diabetes. See *levulose.*

Diacetyl-morphine is the chemical better known as *heroin.*

Diacetyl-rufigallol-tetramethyl.—See *exodin.*

Diaphtherin is the fanciful name applied to *oxyquinaseptol* or *oxyquinoline phenolsulphonate*, forming by uniting 1 molecule of ortho-penolsulphonic acid and 2 molecules of ortho-oxyquinoline. It occurs as a yellow powder, soluble in water or diluted alcohol. It was introduced some years ago as a nox-toxic surgical antiseptic as well as anti-rheumatic, but has not been mentioned in literature latterly and has been withdrawn from this market. Dose, 8 to 15 grains a day; applied externally in ½ to 2-per-cent. solutions.

Diaphtol (*quinaseptol, chinaseptol,* or *ortho-oxyquinoline-metasulphonic acid*), $C_9H_5N.OH.SO_3H$, occurs as yellowish crystals or powder, slightly soluble in cold water. It was introduced by Guignard as a urinary disinfectant, to replace salol. Dose, same as of salol.

Diastin is a brand of diastase, prescribed chiefly in amylaceous dyspepsia in doses of 5 grains.

Diatheion is "pure and freely diffusible sulphur in a bland medium; also contains infinitesimal traces of silicic, fluoric, and formic acids."

Diathesin is the name applied to synthetically prepared (from carbolic acid and formaldehyde) *saligenin* (ortho-oxy-benzyl alcohol, $C_7H_8O_2$) which was formerly obtained from salicin by hydrolysis. It occurs as fine, white leaflets, slightly bitter in taste, soluble in about 15 parts of water and freely so in alcohol or ether. Mineral acids and alkalies decompose it. It is employed in place of the salicylates in rheumatism, tonsillitis, etc. Dose, 7½ to 20 grains.

Dibromo-diiodo-hexamethylenetetramine is referred to under its trade name *chrysoform*.

Dibromo-gallic or **Dibromo-trioxybenzoic Acid** is bettter known as *gallobromol;* see this.

Dibromo-salicylic Acid Methyl Ester is the chemical designation of *salibromin*, which see.

Didymin is a trade name applied to the dried and powdered fat-free testicular substance of the bull. It is marketed as tablets each representing 5 grains of the fresh organ and constituting the dose. It is used as an aphrodisiac.

Didymium Salicylate is referred to under its trade name *dymal*.

Diethyl-acetal and **Diethyl-aldehyde** are synonymous with *acetal*.

Diethylamide Valerianate is *valyl*.

Diethyl-barbituric Acid is a chemical equivalent of *veronal*.

Diethylenediamine is the chemical designation for *piperazine*.

Diethylglycocoll-guaiacol Hydrochlorate is the chemical name of *gujasanol;* see the latter.

Diethyl-ketone, also known as *proprione*, *metacetone*, and *ethyl-propionyl*, is obtained from the distillation of sugar with an excess of lime. It forms a thin, colorless, light liquid, smelling like acetone, and freely soluble in alcohol or ether, less readily so in water. It was recommended by Dr. G. Noera as a hypnotic and sedative (in mania) in doses of 10 to 40 minims.

Diethyl-malonyl-urea is better known as *veronal*, which see.

Diethyl-sulphone-methyl-methane and **Diethyl-sulphone-methyl-ethyl-methane** are the chemical appellations for *sulfonal* and *trional* respectively.

Difluordiphenyl is described under *antitussin*.

Digalen is a *soluble digitoxin* obtained by Cloetta from digitalis by a very complicated process, and said to be identical chemically with the well-known crystalline digitoxin, but differing physically from it in being soluble in water and hence more rapidly absorbed. Dr. Naunyn recommends it as a cardiac tonic and sustainer.

Dose, 1/300 to 1/100 grain, one to three times daily. Maximum dose, 1/50 grain. It is marketed in aqueous solution (with 25 per cent. glycerin), each c.c. of which contains 1/200 grain of digalen.

Digitalin is another drug about which considerable confusion exists among pharmacists as well as physicians. Four different digitalins are known: (1) *Digitalin French Amorphous*, also designated as "digitaline chloroformique" or "Homolle's amorphous digitalin," a yellowish powder soluble in chloroform or alcohol but insoluble in water and given in doses of 1/250 grain rapidly increased until 1/40 grain is taken daily; (2) *Nativelle's Crystalline Digitalin*, which is practically identical with digitoxin and hence employed in the same doses; (3) *Digitalin Kiliani* or so-called "digitalinum verum," a water-insoluble product administered in doses of 1/30 to 1/10 grain several times daily gradually increased to ⅓ grain; and (4) *Digitalin German*, a yellowish-white powder soluble (though incompletely) in water or alcohol and almost insoluble in chloroform. It appears to be practically the only digitalin known to American physicians, probably because it has repeatedly been referred to during the past few years in the American medical press. As regards the dose of this digitalin, this was formerly stated to be from 1/64 to 1/32 grain several times a day. A few years ago, however, Dr. Henry Beates, Jr., of Philadelphia, made a thorough clinical investigation of German digitalin and arrived at the conclusion that the proper dosage is 1/10 to ½ grain three or four times daily, and latterly he has given as much as 1 grain at a dose. The so-called "digitalin crystallized" is in reality digitin and identical with crystalline digitonin, and thus lacks the specific cardiac action of digitalis.[1]

Digitalone, according to its introducer, Dr. E. M. Houghton, is the outcome of attempts to obtain a uniformly active, sterile and non-irritating preparation of digitalis adapted for subcutaneous as well as internal use. It is a non-alcoholic liquid, 10 parts representing 1 part of the crude

drug, and containing about 0.6 per cent. of chloretone as a preservative. Dose, 5 to 30 minims.

Digitalysatum Bürger is a standardized preparation of fresh digitalis leaves, each gram of which represents a gram of fresh or 0.2 gram of dried digitalis leaves. It is employed internally and subcutaneously, in doses of 5 to 15 minims several times daily; the maximum daily dose being 75 minims.

Digitoxin, $C_{28}H_{40}O_{10}$, is the most active glucoside of digitalis. It occurs as a white, crystalline powder, almost insoluble in water or ether but soluble in alcohol or chloroform. It has been recommended as a heart tonic of uniform activity owing to its well-defined chemical nature. Dose, 1/250 to 1/60 grain three times daily. Incompatible with acids and vegetable infusions.

Diiodo-beta-naphtol, $C_{10}H_6I_2O$, a yellowish-green powder of faint iodine odor and readily soluble in chloroform, was introduced a few years ago as a substitute for iodoform; it is known also as "naphtol-aristol."

Diiodo-carbazole, $C_{12}H_6I_2.NH$, results from the action of iodine upon diphenylimide (carbazole). It forms yellow, odorless leaflets, insoluble in water but soluble in ether. It is intended as a substitute for iodoform as a wound antiseptic.

Diiodo-dithymol is a chemical synonym of *aristol*.

Diiodoform, chemically *ethylene per-* or *tetra-iodide, or iodoethylene*, C_2I_4, is obtained from acetylene iodide and an excess of iodine. It occurs as yellow needles, odorless when first made but assuming a characteristic odor on exposure to light, soluble in chloroform, slightly so in alcohol or ether, and insoluble in water. It was introduced in France as a substitute for iodoform; it contains 95 per cent. of iodine.

Diiodo-para-phenolsulphonic Acid.—See *sozoiodole*.

Diiodo-salol (*diiodo-salicylic acid phenyl ester*) occurs as colorless crystals insoluble in water and soluble in alcohol. It is intended as a substitute for iodoform externally, and for the

salicylates and iodides internally. It has not met with favor.

Diiodo-thio-resorcin, $C_6H_2O_2I_2S_2$, is another wound antiseptic that has not gained prominence. It forms a brown powder, soluble in alcohol, and used in powders and ointments like iodoform.

Dimethyl-arsenic Acid is a synonym of *cacodylic acid.*

Dimethyl-ethyl-carbinol is better known as *amylene hydrate.*

Dimethyl-oxy-quinizine is a chemical name for *antipyrine.*

Dimethyl-sulphone-dimethyl-methane. — See *methonal.*

Dimethyl-xanthine is *theobromine.*

Dimethylethylcarbinol-chloral.—See *dormiol.*

Diomorphine is the name given by Dr. Brügelmann to a 10-per-cent. solution of dionin with 1 per cent. of morphine hydrochlorate, which he injects hypodermically during paroxysms of asthma. Dose, 5 to 10 drops.

Dionin (*ethyl-morphine hydrochlorate*), $C_{17}H_{17}NO(OH)(OC_2H_5).HCl+H_2O$, is prepared from morphine analogously to codeine (methyl-morphine). It occurs as a white, bitter, odorless powder, soluble in about 7 parts of water, 1½ alcohol, or 20 syrup, but insoluble in ether or chloroform. It is used chiefly as a substitute for morphine. Dose, ¼ to 1 grain.

Diopyranum is said to be identical with *pyramidon.*

Diosmal is a ligroin-alcoholic extract of buchu which is administered in doses of 5 to 10 grains thrice daily.

Dioxogen is a trade name for a certain brand of hydrogen peroxide solution 3 per cent.

Dioxyanthrol is described under *anthrarobin.*

Dioxybenzene (-benzol), **Meta-**, is *rescorcin;* **Para-**, *hydroquinone;* and **Ortho-**, *pyrocatechin.*

Dioxymethyl-anthraquinone is *chrysarobin.*

Dioxybenzene - hexamethylenetetramine is marketed as *hetralin,* which see.

Di-para-anisyl-monophenetyl-guanidine Hydrochlorate is the chemical designation for *acoin.*

Diphtheria Antitoxin.—See *antitoxin, diphtheria.*

Diphthericide of Bergmann is chewing-gum in the form of pastilles containing gutta percha, gum damar, sodium benzoate, thymol, and saccharin, and intended for use as a preventive of diphtheria.

Diquinine Carbonic Ester or Ether is better known as *aristochin.*

Disinfectine is a disinfectant soap of unknown composition.

Disinfectol is a disinfectant liquid brought forward by Löwenstein, consisting essentially of resin soaps, tar oils, and sodium cresols.

Disodium Methylarsenate, or *sodium methylarsenate,* $OAsCH_3O_3Na_2+5H_2O$, results from the action of methyl iodide upon sodium arsenite in the presence of an excess of alkali. It forms colorless, efflorescent crystals of alkaline reaction and taste, readily soluble in water, sparingly so in alcohol, and insoluble in ether or oils. It is considered an improvement on sodium cacodylate (mono-sodium di-methylarsenate), not imparting a garlicky odor to the breath and perspiration as the latter does. It is used as a substitute for the inorganic compounds of arsenic in tuberculosis, malaria, skin diseases, etc. Dose, ⅓ to 1 grain. The drug is also known by various trade names such as *arrhenal, neo-arsycodile, arsynal, stenosine,* etc.

Dispermine is synonymous with *piperazine.*

Dispnon Tablets each contain 0.25 gram of diuretin, 0.1 gram of agurin and 0.1 gram of extract of quebracho. They are employed in asthmatic affections. Dose, 2 tablets three or four times daily.

Dithan is a brand name for the chemical known better as *trional.*

Dithion is a mixture of sodium alpha- and beta-dithiosalicylates; a yellowish-gray powder soluble in water and used in foot-and-mouth disease of cattle in 2½- to 5-per-cent. solution.

Dithymol Diiodide.—See *aristol.*

Diurazin is defined as *theobromine acetyl-methylene-disalicylate*. It is brought forward as a diuretic. See caution under *formaldehyde*.

Diuretal is *theobromine-sodium*.

Diuretin is a brand of *theobromine-sodium and sodium salicylate* or *theobromine and sodium salicylate* as it is more commonly called; see this.

Divinal is a compound of silicic acid, alumina, ferric oxide, lime, chalk, magnesia, and magnesium carbonate. It is used as an addition to baths in gout, rheumatism, nervous affections, etc.

Djoeatin is a synonym of *antimellin*, which see.

Dormiol is chemically *amylene-chloral* or *dimethyl-ethyl-carbinol-chloral*, $CCl_3.CHOH.O(CH_3)_2$-C_2H_5, a colorless, oily liquid, of the specific gravity 1.24, pungent, camphoraceous odor and cooling taste; soluble very slowly but freely in hot water, and miscible in all proportions in alcohol, ether, chloroform or fatty oils. It is prescribed as a hypnotic in doses of 8 to 30 minims, in water or capsules. Marketed as 50-per-cent. aqueous solution, and as 0.5 gram capsules.

Dormitiv is a hypnotic said to consist of an alcoholic extract of lactuca sativa with anise oil and sugar.

Duotal.—See *guaiacol carbonate*.

Duotonol is a mixture of pure calcium and sodium glycerinophosphates in equal proportions, a white, granular powder, freely soluble in water. It is used as a nerve tonic. Dose 5 to 10 grains 3 times daily.

Duran is described as a preparation containing calcium and magnesium carbonates and phosphates, in combination with albumin; a white powder, marketed also as chocolate-coated tablets, and intended for use in rickets and other cachectic diseases of children.

Durana is a collective name for gutta percha plaster mulls prepared according to Unna's principles by Drs. Degen and Kuth, of Düren (Rheinland).

Dygestiv is a cordial of bromelin, the supposed digestive principle of pineapple juice, and papain, the digestive ferment of the papaw. It

is prescribed as a digestant and also as a vehicle for bromides, etc. Dose, 2 to 4 teaspoonfuls, immediately after meals.

Dymal is essentially *didymium salicylate*, $Di_2(C_6H_4OH.COO)_6$; a fine odorless, pinkish-white, insoluble powder, introduced by Prof. Kopp as a siccative wound antiseptic, to be employed pure or as 10-per-cent. dusting-powder or ointment. It is a by-product in the manufacture of incandescent mantles.

Dymol is an intestinal remedy of undivulged composition. Dose, 1 to 3 grains.

Dynamogen is a blood preparation similar to Hommel's haematogen and used like it in anemia.

Dyspeptine, according to Dr. Kipp, is "natural gastric juice of healthy pigs, rendered sterile without addition of foreign substances and preserved in sterilized flasks." Dose, 1 to 3 tablespoonfuls after meals, in dyspepsia.

E

Echafolta is an eclectic preparation of the drug echinacea angustifolium, intended as an internal antiseptic and alterative.

Echidine is said to be a combination of iodine with the active principles of echinacea and thuja. It is an anti-purulent and alterative, used internally (chiefly) and externally. Dose, 2 to 5 minims, well diluted, two to six times daily, before meals. Applied to syphilitic ulcers, abscesses, etc., in full strength or diluted.

Ecthol is a liquid internal antiseptic and "anti-purulent," said to contain the active principles of echinacea and thuja.

Egols are compounds defined by Gautrelet as ortho-nitro*phenol*-, *cresol*-, or *thymol*-para-sulphonates of mercury respectively, which are known as "phenegol," "cresegol," and "thymegol." See these headings.

Eigons are a group of bromine and iodine compounds of albumin. *Iodo*-eigon, also known as "alpha-eigon," occurs as a light-brown, odorless

and tasteless powder, containing 20 per cent. of iodine in chemical combination, and insoluble in water; it is used like iodoform externally. *Pepto-iodo*-eigon, also known as "beta-eigon," is a yellowish, odorless, nearly tasteless powder, containing 15 per cent. of iodine and soluble in water; it is intended as a substitute for the alkali iodides internally and is given in similar doses. *Iodo-eigon-sodium* or sodium iodo-albuminate, is a yellowish, odorless, almost tasteless powder, containing 15 per cent. of iodine, and completely soluble in water, diluted alkalies or acids; it, too, was intended for internal use but has latterly been abandoned in favor of pepto-iodo-eigon. *Brom*-eigon is a compound of bromine with albumin, containing 11 per cent. of bromine; a whitish, almost odorless and tasteless powder, insoluble in water. It was employed chiefly as a dusting powder in ozena and other catarrh, and internally as a succedaneum for the alkali bromides; but it has latterly been practically superseded by *pepto-brom*-eigon, a whitish, faintly acid powder of peptone-like odor soluble in water, and containing 11 per cent. of bromine. Dose, same as of potassium bromide.

Eka-Iodoform is a pure iodoform prepared by electrical synthesis and sterilized with 0.05 per cent. of paraformaldehyde. See caution under *formaldehyde*.

Ektogan is a yellowish-white, odorless, tasteless powder, insoluble in water; it is essentially impure zinc peroxide (ZNO_2), giving off O on contact with wound-secretions and hence recommended as an antiseptic applied pure or as ointment. It is also used for preparing H_2O_2. It should be kept in glass-stoppered bottles.

Elchina is a Swiss elixir of cinchona containing 0.32 per cent. of quinine, 2 per cent. of sodium glycerinophosphate, and 1 per cent. of tincture of nux vomica.

Electron is said to be ozonized olive oil.

Elkossan is a preparation obtained from the seeds of brucea sumatrana and used as an antidysenteric and hemostatic. It is marketed as tablets, 6 to 8 of which constitute the daily dose.

Elytromes are antiseptic, astringent vaginal suppositories containing borogiyceride, hydrastine, thymoline, zinc sulphocarbolate and acetanilid. Formula B contains ichthyol in addition.

Emenah is "a liquid emmenagogue containing champaca, abromafastuosa (?), ferrum, ruta and apiol," marketed in 4-oz. bottles.

Emetine (alkaloid) of the market is not a simple homogeneous body but the total alkaloid of ipecac, consisting according to Dr. Paul of emetine proper and cephaeline. The emetic dose is 1/12 to ⅙ grain; the expectorant, 1/60 to 1/30 grain several times daily. Emetine *hydrochlorate* (Paul), $C_{29}H_{42}NO_4.HCl$, is a white powder, soluble in water or alcohol, and sensitive to light. It is used mostly as an expectorant, 1/12 to ⅙ grain per dose.

Emodin (*trihydroxymethyl-anthraquinone*), $C_{14}H_4O_2.CH_3(OH)_3$, is a reddish-yellow powder, soluble in alcohol and alkalies but insoluble in water. It acts as a cathartic in the dose of 1½ grains best given in pills. It is the purgative principle of rhubarb and many other drugs.

Emol is a flesh-colored kind of steatite (a natural magnesium silicate chemically close to talcum) found in England, used as a vulnerary usually in combination.

Emollientine is not an emollient, but an antiseptic and astringent ointment consisting of aluminium hydrate, carbolic acid, isarol (ichthyol), lead oxide, corrosive sublimate, zinc oxide and the base. It is used in eczema, psoriasis, favus, pruritis and other skin diseases.

Empyroform is a combination of birch tar and formaldehyde; a dark grayish-brown, almost odorless powder. It is intended for use in place of tar in skin diseases, in 1 to 20 per cent. ointments, paints or liniments. An empyroform soap is also made, 5 per cent. and 10 per cent. See caution under *formaldehyde*.

Emulgates is the generic name applied to solid emulsions—triturations of oils, oleoresin of male fern, and other fluid drugs, with roborat (lecith-

albumin). The products contain 50 per cent. of roborat and 50 per cent. of the fluid medicament.

Endermol is a "compound of stearamide with hydrocarbons of the paraffin series"; a neutral, odorless ointment base, and claimed to be more rapidly absorbed than other ointment bases and to be non-irritating. *En*dermol should not be confounded with *eu*dermol.

Endomentol is a 0.1 per cent. ointment of nicotine salicylate, recommended in scabies, and apparently similar to eudermol.

Energetenes are fresh juices of various medicinal plants that are prepared (in France) without alcohol or heat and reported to contain the active principles in unaltered form. They occur as brownish liquids possessing the odor and taste of the respective plants. Convallaria, colchicum, digitalis and valerian "energetènes" have been prepared.

Energin is a nutrient consisting essentially of the proteins of rice; a fine, almost odorless and tasteless grayish-white powder, slightly soluble but swelling in water.

Enesol is the fanciful name applied to what is defined as *mercury salicyl-arsenate*, obtained by the action of 1 molecule of methylarsenic acid on 1 molecule of basic mercury salicylate. It occurs as a white powder, soluble in about 25 parts of water, yielding solutions that do not give the usual reactions of arsenates or of mercury. It contains 38.46 per cent. of mercury, and 14.4 per cent. of arsenic, and was introduced by Dr. Goignet for hypodermic use in syphilis. Dose, not stated.

Ensemin is a dental local anesthetic, said to consist of a 1 per cent. solution of cocaine hydrochlorate with adrenalin chloride and a little chloretone.

Enterin is a compound of hexamethylenetetramine and proteid, intended as an intestinal disinfectant, particularly in typhoid fever. Dose, 10 to 20 grains. See caution under *formaldehyde*.

Enterokinase is a peculiar digestive ferment

isolated by Pawlow from the mucous membrane of the duodenum.

Enterol or Enterokresol is described as a mixture of the three isomeric cresols from coal tar oil, and hence would appear to be identical with trikresol (tricresol). A so-called *carbonate* of it has also been prepared.

Enterorose is a dietetic recommended in diarrheas and gastric diseases. It is said to consist of vegetable albumin impregnated with a meat solution and containing diastase, and occurs as a yellowish powder that mixes well with water.

Enwekain is a brand of purified wool fat.

Eosolates are "a series of sulpho-acid salts of the aliphatic creosote esters," introduced by Dr. G. Wendt of Berlin. See *calcium eosolate* and *quinine eosolate.*

Eosote is the name applied to the so-called *creosote valerianate;* a yellowish, oily liquid, of smoky-aromatic taste and odor; insoluble in water, readily soluble in alcohol or ether. It is used chiefly in phthisis, but to a limited extent also as a gastro-intestinal disinfectant. Dose, 3 to 10 minims three times a day, in capsules (0.2 gram), or in milk or alcoholic solution.

Ephedrine Hydrochlorate, $C_{10}H_{15}NO.HCl$, is the salt of the alkaloid of ephedra helvetica; white needles, readily soluble in water or alcohol, and employed in 10 per cent. solution as a mydriatic (1 or 2 drops per instillation).

Epicarin is the trade name applied to *beta-oxynaphtyl-ortho-oxy-meta-toluylic acid.* The drug forms yellowish needles soluble in alcohol, ether, vaselin or olive oils; insoluble in water, slightly soluble in chloroform. It is employed in parasitic skin diseases (scabies, herpes tonsurans, etc.), chiefly in ointments (10 to 20 per cent.), 10 per cent. solutions made with sodium carbonate, and in 10 to 15 per cent. alcoholic solutions. Solutions in other oils than vaselin or olive, or in vaselin and lanolin, can be made with the addition of a little ether. *Veterinary* epicarin is an impure grade intended for veterinary prac-

tice; a reddish-brown powder, used the same way as the medicinal quality.

Epidermin is a name applied to two different preparations; one an ointment consisting of fluorpseudocumol (1), difluordiphenyl (4), anhydrous wool fat (85), and petrolatum (10), and used on wounds; the other is an ointment base composed of white wax, water, acacia, and glycerin.

Epinephrin is one of the various trade names for the therapeutically active principle of the suprarenal capsule, which article is fully described under *adrenalin*.

Epiosin is a derivative of morphigenin, occurring as transparent prisms that are easily soluble in water or chloroform, but insoluble in ether or water, and used as an anodyne and sedative in doses of 1½ to 2 grains.

Epirenan is a 1:1000 solution of a brand of the active principle of the suprarenal gland, which remedy is referred to fully under *adrenalin*.

Erasin is a syrup of potassium guaiacol sulphonate and ethylmorphine hydrochlorate, made in Alsace.

Ergone is a new liquid preparation of ergot for internal or hypodermic use; 1 c.c. is said to represent 1 gram of ergot.

Ergotina Styptica (Egger) is, according to L. Hajos, a fluid extract of ergot containing 5 per cent. of stypticin and recommended in disturbed cerebral circulation and in neuroses accompanying or following menstrual disturbances. Dose, 10 to 15 drops.

Ergotinol is a hydrolyzed, dialyzed fluid extract of ergot, 1 c.c. of which is said to equal 0.5 gram of extract of ergot Ph. G. IV. Dose, 3 to 10 minims.

Ergotole is a liquid preparation of ergot 2½ times as strong as the U. S. P. fluid extract and used chiefly hypodermically. Dose, 5 to 20 minims.

Ericin is stated to be identical with *mesotan*, which see.

Ericolin is a glucoside of ledum palustre (wild rosemary) and various other ericaceæ; a brown mass, soluble in water, and credited with astringent and tonic effects.

Erosan is a syrup of potassium sulphoguaicolate (1:15) containing also ethyl-morphine hydrochlorate (1:500). It is used in phthisis and chronic bronchial catarrh.

Erosin is a resinoid obtained from chadamicum luteum; a pale-yellow mass, soluble in water or alcohol, and reported to have diuretic, sedative and anthelmintic actions.

Erysimin is a glucoside obtained from the seeds of erysimum and possessed of the physiologic properties of digitalin.

Erythrol Tetranitrate (*tetranitrol; nitrated erythrol*), $C_4H_6(NO_3)_4$, forms colorless leaflets, easily soluble in alcohol but insoluble in water, and exploding on percussion; hence marketed only as chocolate tablets (½ grain), 1 or 2 of which every 4 to 6 hours constitute the dose. It is a vaso-dilator and antispasmodic like nitroglycerin, and is thus used in angina pectoris, heart diseases, etc.

Erythrophleine Hydrochlorate is the salt of the alkaloid of erythrophleum guineense (sassy bark); a yellowish-white hygroscopic powder, soluble in water or alcohol, and employed as a local anesthetic (chiefly in eye diseases) in 1:2000 to 1:400 solutions and as a heart tonic (1/30 to 1/15 grain).

Esanofele is an antimalarial in pill form, consisting of quinine hydrochlorate, iron citrate, arsenous acid and a vegetable extract.

Escorcin (*æscorcin*), $C_9H_8O_4$, is derived from esculetin, a cleavage product of esculin (from horse chestnut bark). It occurs as whitish, water-soluble crystals, and was recommended by Dr. Fröhlich for diagnosing corneal defects—1 or 2 drops of a 10 to 20 per cent. aqueous solution instilled into the eye stains the lesions red.

Eserine-Pilocarpine is a simultaneously crystalized mixture of eserine salicylate and pilocarpine hydrochlorate (1:2), occurring as a white

powder, soluble in water and alcohol, and used as an anodyne and cathartic in colic of horses (3 to 6 grains per dose by injection).

Ester-Dermasan is a soft soap containing 10 per cent. of free salicylic acid besides 10 per cent. of salicylic acid esters of phenyl and benzoyl radicles. It is used topically in rheumatic affections, 5 to 10 grams per inunction.

Ether, Chloromethylmenthylic.—See *forman.*

Ether, Glycerino-salicylic, is referred to under *glycosal.*

Ether, Hydriodic, is the well-known *ethyl iodide.*

Ether, Methyl-diiodosalicylic, is better known as *sanoform.*

Ether, Hydrobromic, is *ethyl bromide.*

Ether, Salicylic, was recently brought forward by Dr. A. Voswinkel as a succedaneum for mesotan as a topical antirheumatic. It is clearly soluble in castor oil and olive oil.

Ethol (*æthol*) is a trade name for *cetyl alcohol.*

Ethoxycaffeine (*æthoxycaffeine*), $C_8H_9.OC_2H_5.N_4O_2$, is obtained by boiling monobrom-caffeine with an excess of alcoholic potassa solution, and forms white crystals, soluble in ether and hot alcohol. It is used in migraine and neuralgias, 4 grains several times daily in wafers.

Ethyl-Amygdophenin is the same as *amygdophenin.*

Ethyl Carbanilate.—See *euphorine.*

Ethyl Chloride (*monochlor-ethane*), C_2H_5Cl, is a gas at ordinary temperature and pressure; but when compressed, as marketed, it is a colorless, very volatile, highly inflammable liquid, of the specific gravity 0.918, and soluble in alcohol. Owing to its low boiling-point (12.2° C.), it is marketed only in hermetically sealed tubes with capillary points, or tubes closed by various patented devices. It is employed as a local anesthetic in minor operations, neuralgias, etc., as a spray, the heat of the hand grasping the tube forcing out the stream. Ethyl chloride is marketed also

under a number of trade names (*kelene, anodynone, antidolorin, ethylol*, etc.)

Ethyl Sublimate.—See *mercury-ethyl chloride.*

Ethylene Bromide (*dibrom-ethane*), $CH_2Br.CH_2Br$, occurs as a slightly brownish, heavy liquid (sp. gr. 2.189), of chloroform odor, and soluble in alcohol. It is used as a nerve sedative in doses of 1 to 2 minims two or three times daily, in emulsion or capsules. It should be kept protected against light; and it should not be confounded with the relatively non-poisonous ethyl bromide.

Ethylenediamine-Mercury Sulphate is described under *sublamine.*

Ethylene Periodide (*tetraiodide*).—See *diiodoform.*

Ethylenediamine-Silver Phosphate.—See *argentamine.*

Ethylenediamine-Trikresol is better known as *kresamine;* see this.

Ethylene-imine is a synonym of *piperazine.*

Ethyl-morphine Hydrochlorate is described under *dionin.*

Ethyl-narceine Hydrochlorate is the chemical designation for *narcyl.*

Ethylol is a trade name of *ethyl chloride.*

Ethyl-Propionyl.—See *diethyl-ketone.*

Euarol is an ointment consisting of aristol, europhen and petrolatum.

Eubiol is described as pure hemoglobin with the important salts and albumins of the blood; an odorless powder, soluble in water; and eubiol *liquid*, as a 1:1 solution of eubiol in glycerin prepared in vacuo.

Eubiose is defined as a concentrated, glycerin-free hematogen rendered permanent by treatment with carbonic acid.

Eucaine, Beta-Eucaine, or **Eucaine Hydrochlorate B,** is the *hydrochlorate of benzoylvinyldiacetone-alkamine*, and occurs as a white, neutral powder, soluble in 33 parts of cold water. It is used like cocaine as a local anesthetic, and is claimed to be less toxic, and sterilizable by

boiling without fear of decomposition. It is applied mostly as 1 to 5 per cent. solutions, which are conveniently prepared in a test-tube with boiling water. It is also marketed as 1½ and 5 grain tablets. *Alpha*-eucaine appears to have been withdrawn from the market.

Eucaine Acetate is a new salt of the above mentioned base, differing from the preceding in that it is very freely soluble in water—1 in 3. In other respects, it is similar to eucaine.

Eucaine Lactate is a new salt of benzoyl-vinyl-diacetone-alkamine, whose action and uses are the same as those of eucaine hydrochlorate but used chiefly as a local anesthetic in eye practice.

Eucaldin is a local anodyne, and an internal antiseptic, antispasmodic, and antimalarial, prepared by the fractional distillation of eucalyptus globulus and pinus sylvestris. Externally (in sciatica, sprains, rheumatic pains, etc.) it is applied pure, the part (if an extremity) being covered with rubber sheeting or a dampened towel. Dose, 10 to 20 minims in water, 3 or 4 times a day, or every half hour if necessary for four doses.

Eucalypteol, chemically *eucalyptene hydrochlorate*, is obtained from oil of eucalyptus and is intended to replace the latter as an internal antiseptic (gastrointestinal diseases, phthisis, etc.). It forms yellowish, hygroscopic crystals of camphoraceous odor and peculiar taste, and soluble in alcohol, ether, chloroform or oils. Dose, 20 to 30 grains per day, in capsules or wafers or as confection. Eucalypt*eol* must not be confounded with the official eucalypt*ol*.

Eucasin or *casein-ammonia* is a nutritive recommended in anemia, gout, gastric and lung diseases. Dose, a tablespoonful two to four times daily in soup, etc.

Eucasol.—See under *anytin*.

Euchinal is what L. Dokkum calls the carboxy-ethyl ester of quinetum (a natural mixture of the cinchona alkaloids). It is intended as a "bitterless quinine."

Eudermol is the name applied to nicotine sali-

cylate, which forms colorless crystals soluble in water and alcohol and of a faint empyreumatic odor. It is used as a 0.1 per cent. ointment in scabies, and as a 1 per cent. ointment in veterinary practice (sarcoptes mange). *Eudermol* should not be confounded with the ointment base eudermol.

Eudrenine is a local anesthetic marketed in capsules of 0.5 c.c., containing 1/12 grain of eucaine and 1/4000 grain of adrenalin hydrochloride. It is used as a local anesthetic, chiefly in dentistry. The contents of one or two capsules, according to the number of teeth to be extracted, are injected into the gums ten minutes before extracting.

Eudoxine is the bismuth salt of nosophen (tetraiodophenolphtalein), occurring as a reddish-brown, odorless, tasteless powder, insoluble in water and employed as an intestinal antiseptic and astringent in doses (adult) of 5 to 15 grains 3 to 5 times daily.

Euformol is a liquid antiseptic containing as the active ingredients oil of eucalyptus, oil of wintergreen, thymol, menthol, boric acid, fluid extract of wild indigo, and formaldehyde solution. It is used diluted with two to ten parts of water. See caution under *formaldehyde*.

Eugallol is defined chemically as pyrogallol monoacetate. It is marketed only in 66 per cent. solution in acetone, which is a dark-yellow, syrupy liquid soluble in water and acetone and intended as a succedaneum for pyrogallic acid in psoriasis, etc. It is usually applied pure, once daily, followed in half an hour by zinc oxide powder or paste.

Eugenoform (*eugenol-carbinol-sodium*) occurs as colorless crystals, readily soluble in water but sparingly so in alcohol. It is prescribed as an intestinal disinfectant, 8 to 30 grains twice a day.

Eugenol Benzoate is described under *benzo-eugenol*.

Eugenol Cinnamic Ester is better known as *cinnamyl-eugenol*, which see.

Eugenol Iodide.—See *iodo-eugenol*.

Eugol is an English liquid antiseptic consisting essentially of beta-naphtol, eucalyptol, salol, menthol, boric acid, extract of witchhazel and formaldehyde. See caution under *formaldehyde.*

Euguform is *acetylized methylene-diguaiacol;* a grayish-white, nearly odorless powder, insoluble in water, and used as a dusting powder or 5 to 10 per cent. ointments on wounds, burns, etc. *Soluble* euguform is a 50 per cent. solution of euguform in acetone, and is applied pure, or as paste or ointment. See caution under *formaldehyde.*

Eukinase is a digestive ferment isolated by Hallion and Carrion from the duodenum of the pig as a yellow powder, and recommended in intestinal indigestion. *Pankreatokinase* is a mixture of eukinase with pancreatin and intended to be used in cases where pancreatin was hitherto employed. Both products are marketed in hardened gelatin capsules that pass the stomach unacted upon. The hardening is probably done by formaldehyde. See caution regarding this latter substance in the description of *formaldehyde* elsewhere in this book.

Eukodin is the fanciful name given to *codeine bromomethylate* or *codeine methylbromide.* The product occcurs as colorless crystals, freely soluble in water, and is prescribed chiefly as a cough sedative in phthisical patients. Dose, 3 to 5 grains.

Eulactol is described as a pulverulent nutrient prepared from milk and vegetable albumin, "containing all the nutritive substances necessary to life in the rational proportions."

Eulyptol (*ulyptol*) is an antifermentative remedy consisting of salicylic acid, carbolic acid and eucalyptus oil.

Eumenol is the trade name applied to the fluid extract of the root of tang-kui, kau-kui, man-mu, or schan-ki, a Chinese araliacea. It is employed as an emmenagogue and uterine sedative, particularly in nervous amenorrhea and dysmenorrhea. Dose, 1 fluid dram three times daily in sweetened water.

Eumorphol is an antimorphine serum introduced by Dr. Hirschlaff for use in the treatment of morphine poisoning and morphinomania.

Eumydrin.—See *atropine methyl-nitrate.*

Eunatrol is a trade name for sodium oleate of the formula $(C_{18}H_{33}O_2)_4Na_2$, which occurs as a yellowish-white powder soluble in water and alcohol. It is prescribed as a cholagogue, chiefly in gall stone disease. It is marketed only as chocolate-coated pills (0.25 gram), 4 of which are taken twice daily.

Eunol, Alpha- and **Beta-**, are described as condensation products of alpha- and beta-naphtol respectively, but their composition is not further stated. They are soluble in alcohol and olive oil; insoluble in water. They are intended as wound antiseptics and dermics.

Euphorine (*phenyl-urethane; phenyl-ethylurethane; phenyl-ethyl carbamate; ethyl carbanilate*), $CO(NH.C_6H_5)(OC_2H_5)$, forms a white, faintly odorous powder, of clove taste, soluble in alcohol or ether, almost insoluble in water. It is prescribed as an analgesic and antiseptic—externally as dusting-powder on wounds, etc.; internally in rheumatism, sciatica, etc., in the dose of 8 to 15 grains two or three times daily. Incompatible on trituration with camphor, monobromated camphor, carbolic acid, chloral hydrate, menthol, resorcin, salol, thymol, and urethane. Euphorine should not be confounded with europhen.

Euphthalmin Hydrochlorate, $C_{17}H_{25}NO_3.HCl$, is the salt of the mandelic acid derivative of n-methyl-vinyldiacetone-alkamine; a white powder, readily soluble in water or alcohol. It is used as a mydriatic in 2 to 10 per cent. solutions; its effects pass away quickly.

Euporphin is the fanciful name applied to *apomorphine bromomethylate* or *methylbromide*, obtained by alkalyzing morphine with dimethyl sulphate, and treating the resulting methylsulphate with a saturated solution of potassium bromide. It occurs as colorless needles or scales, easily soluble in water or alcohol. It is intended to supersede apomorphine hydrochlorate, espe-

cially as an expectorant; its solutions are far more permanent to air and light.

Euprotans are dry albuminous nutritives prepared from blood. An *alpha-* euprotan and a *beta-* euprotan are marketed, the former, owing to its cheapness, being recommended especially for hospitals and dispensaries.

Eupyrine (*vanillin-ethyl-carbonate-para-phenetidin*) occurs as greenish-yellow, tasteless needles of vanilla odor, readily soluble in alcohol, ether or chloroform, slightly so in water. It is a mild antipyretic, used especially in children and weak subjects. Dose (adult), 15 to 30 grains; for children, 5 to 15 grains.

Euquinine is chemically *quinine carbonic ether*, and occurs as light, white, fleecy, practically tasteless conglomerations of needles; readily soluble in alcohol, ether, or chloroform; sparingly soluble in water Its solutions are bitter. It has been recommended as a complete substitute for ordinary quinine, less apt to produce cinchonism and other disturbances. Dose, same as of quinine sulphate, in plain powder or as tablets.

Eurobin is *chrysarobin triacetate*, introduced as a succedaneum for chrysarobin in dermatology. It forms a reddish-yellow powder, insoluble in water but soluble in chloroform, acetone, or ether. It is used in 2 to 20 per cent. solutions, which do not stain linen.

Euresol is *resorcin monoacetate*, a yellow semi-solid of pleasant odor, readily pulverizable, and employed in place of resorcin in skin diseases in 5 to 20 per cent. ointments.

Europhen is defined as *diisobutyl-cresol iodide* or *iodo-diisobutyl-orthocresol*, and occurs as a bulky, yellow powder of faint saffron odor; soluble in alcohol, ether, chloroform and fixed oils; insoluble in water. It is employed mainly as a wound antiseptic like iodoform, as dry powder, ointment, etc. It has been occasionally used by injection in syphilis, ½ to 1½ grains once daily in oil. It should not be dispensed with starch, metallic oxides (zinc and mercury in particular), and mercurials, as decomposition is liable to en-

sue; and it should be protected from light, heat and moisture.

Eurythrol is an inspissated extract of the spleen of cattle, recommended for use in anemia—one to two teaspoonfuls daily in bouillon or soup.

Eusemin is a preparation used by injection as a dental anesthetic and containing as active ingredients cocaine and suprarenal extract.

Eusoma is a reddish-brown liquid of faint odor and pungent taste, said to contain in each fluid dram the principles of 15 grains of echinacea angustifolia, 2 grains of thuja occidentalis, and 4 grains of baptisia tinctoria. It is used as an antiseptic and alterative externally and internally. Dose, a teaspoonful three to six times daily.

Eutannin is an aromatic, unsaturated oxy-acid the formula and exact chemical nature of which have not as yet been published. It is readily soluble in alcohol, insoluble in cold water and acidulated liquids, but soluble with decomposition (tannin being liberated) in alkaline solutions. It is intended as an intestinal astringent in diarrhea of various origins. It is marketed mixed with an equal part of milk sugar, the dose of which trituration is 8 to 20 grains two or three times a day.

Euterpen.—See under *nebulates*.

Euthymol is similar to euformol but contains no formaldehyde.

Exalgin is *methyl-acetanilid* or *methyl-phenyl-acetanilid*, $C_6H_5N.CH_3.COCH_3$; white crystals, soluble in alcohol, sparingly soluble in water. It is prescribed chiefly as an antineuralgic, in doses of 2 to 5 grains. Maximum dose, 8 grains.

Exodin is the trade name for *diacetyl-rufigallic-acid tetramethyl ether*. The drug occurs as a yellow, odorless, tasteless powder; insoluble in water. It was introduced by Prof. W. Ebstein of Göttingen as a laxative. Dose, 15 to 23 grains; children usually 7½ grains. Marketed only as 7½ grain tablets, which are best taken disintegrated in water. Exod*in* should not be confounded with exod*yne*, a mixture of acetanilid, sodium bicarbonate and sodium salicylate.

Extracts.—A few extracts that have been introducd in recent years will be here briefly mentioned. *Arenaria*—from arenaria rubra; used in bladder troubles, 30 grains every three hours in sweetened water. *Aspidium spinulosum* (common wood-fern)—an ethereal extract employed as a tapeworm remedy in doses of 1 dram after fasting and followed in a few hours by a cathartic. *Erodium*—from erodium cicutarium, and used as a uterine hemostatic; dose, 2 to 5 grains every 2 or 3 hours, as pills or solution. *Galega officinalis* (goat's-rue)—a galactagogue in doses of 8 to 30 grains two to four times daily in syrup, mixture or pastilles. *Glaucium luteum*, fluid—½ to 1 teaspoonful three times a day in diabetes. *Periploca* (climbing dog's-bane), fluid—used as heart tonic; dose, 5 to 10 drops. *Psidium pyriferum* (guava; djamboe), fluid—employed as an intestinal astringent and hemostatic, 15 to 30 minims in water every 2 hours. *Sorbus acuparia*, fluid—prescribed as a laxative; dose 30 to 240 minims two hours after a meal. *Suprarenal capsule*, hemostatic—brown particles soluble in water with turbidity, and employed as vasoconstrictor topically (10 to 30 per cent. solutions), hypodermically, or intravenously; dose, 1 to 2 fluid drams of 1 per cent. solution.

Extract Dichondra Brevifolia is said to have proved a good remedy in diphtheria. One part of the extract is dissolved in three parts of glycerin, and a tuft of cotton is impregnated with this solution and gently brushed over the pseudomembrane every two to six hours, according to the severity of the case. According to Dr. Aramian, this extract destroys the diphtheria bacilli and may be employed in conjunction with antitoxin.

Extract Thyme, Saccharated. See *pertussin*.

Exudol is "an ointment consisting of ichthyol, green soap and analgesics."

F

Fagacid is a substance isolated from beech tar, of pitch-like structure and color, acid reaction, soluble in alkali solutions forming salts therewith, soluble in water, but not in alcohol, and possessing antiseptic properties. It is intended for an internal antiseptic; but it is also used in soaps, plasters, dietetic products, etc.

Faguline is a solution containing potassium paraguaiacolsulphonate and used in diseases of the respiratory organs.

Fagusol is defined as a salt of guaiacol. It occurs as a pink, odorless, crystalline powder, of a mild bitter-acrid taste, soluble in water and diluted alcohol, insoluble in ether. It appears to be potassium-guaiacol sulphonate (thiocol) colored red. It is used in tuberculosis and chronic bronchitis chiefly, but also in gastro-intestinal fermentation. Dose, 5 to 10 grains three or four times daily, in capsules, solution or powders.

Fango or "Mineral Liniment" is the mud of the hot springs at Battaglia, Italy. It is applied as it is or as baths in rheumatism and female complaints.

Fascol is a bituminous mineral consisting of calcium oxide, carbonic acid, ferrous oxide, silica, nitrogen and sulphur. It is marketed only as 1.25 gram hemorrhoidal capsules containing besides fascol, resorcin, bismuth subgallate, senna, olive oil, wool-fat, and althea ointment.

Fellitin is described as a nearly odorless, natural, medicinal soap, prepared from purified ox gall and used in frostbite.

Fenthozone is an English disinfectant consisting essentially of acetic acid, carbolic acid, menthol, camphor, and oils of eucalyptus, lavender and vervain.

Ferasquin Capsules each contain quinine sulphate 2 grains, iron ferrocyanide 1½ grains, arsenous acid 1/200 grain, and piperin ½ grain.

They are prescribed in malaria, acute or chronic. Dose, 1 to 3 capsules every four hours or three times daily.

Fercao is a ferruginous dietetic consisting essentially of saccharated ferric oxide and cacao.

Fer Cremol is a compound of the coloring matter of the blood and iron (3 per cent.), occurring as a brown, almost tasteless powder, soluble in very dilute ammonia water and prescribed as a hematinic in doses of 10 to 20 grains thrice daily.

Fer- or Ferro-arsycodile.—See *arsycodile.*

Ferformasal is *iron dimethylenesalicylate*, used in anemia of gouty or rheumatic subjects. Dose, 5 to 10 grains, in capsules. See caution under *formaldehyde.*

Fergon is described as a sterilized organic iron solution, similar to liquor ferri albuminati but permanent.

Fermanas Capsules each contain iron albuminate 2½ grains, manganese peptonate 1 grain, strychnine sulphate 1/60 grain, arsenous acid 1/100 grain, and capsicum ¼ grain. The mixture is prescribed as a general tonic. Dose, 1 or 2 capsules after meals.

Fermang is a solution of iron and manganese peptonate, containing 0.6 per cent. of iron and 0.2 per cent. of manganese.

Fermangol is an elixir of iron and manganese peptonate, containinig 0.5 per cent. Fe, 0.1 per cent. Mn, besides glycerinophosphoric acid.

Ferralbumose is a Dutch meat peptone and iron preparation; a powder, containing 10 per cent. of iron.

Ferramat is an iron pill containing also bitter extracts and spices.

Ferratin (*ferralbumin*) is a synthetic ferric acid albuminate containing about 7 per cent. of iron, and forming a brown, almost odorless, tasteless powder. It is employed as a hematinic. Dose, 4 to 8 grains three times daily.

Ferratogen is an iron nucleinate obtained by growing yeast in a ferruginous medium; a yellowish-gray, palatable powder, insoluble in water,

and recommended by Cloëtte as a readily assimilable iron compound. Dose, 5 to 10 grains.

Ferratose is a solution of ferratin, *liquor ferratini*, containing 0.3 per cent. of iron. Dose, 3 or 4 tablespoonfuls per day.

Ferrhaemin is an organic compound of fresh ox blood and iron (0.124 per cent.), containing 20 per cent. of strong Spanish wine.

Ferricodyle is a trade name for *iron cacodylate;* see this.

Ferrichtol is a compound of iron and ichthyol, "iron sulphoichthyolate," occurring as a brownish-black, nearly odorless and tasteless powder, insoluble in the usual solvents as well as in diluted acids and alkalies, and containing 3½ per cent. of iron. It is prescribed in anemia and chlorosis. Dose, 3 to 10 grains, in tablets (marketed as such).

Ferridine is an iron, iodine and arsenic preparation, extolled as a remedy in phthisis, syphilis, anemia, etc.

Ferrinol is another iron nucleinate or nucleide, containing about 6 per cent. of iron. It forms a brown, tasteless powder, soluble in warm water. It is prescribed as a blood-maker, 3 to 6 grains three times a day. Marketed also as 3 grain tablets.

Ferripton is defined as a concentrated, artificially digested, liquid iron preparation made with egg albumin. Dose, several drops in water.

Ferrissol is defined as a compound of cinnamic acid and guaiacol, to be used in phthisis; a white powder soluble in water. Dose, per os, 15 to 30 grains per day; by intramuscular injection, 15 to 45 minims of 10 per cent. solution once daily.

Ferripyrine or **Ferropyrine** (*ferric-chloride-antipyrin* is a compound containing 64 per cent. of antipyrin 12 per cent. of iron, and 24 per cent. of chlorine. It occurs as an orange-red powder, soluble in 5 parts of water, also soluble in alcohol but insoluble in ether. It is used as a hematinic, styptic and astringent—internally, 5 to 10 grains, in solution or as powder; externally, in

1 to 20 per cent. solutions. It is incompatible with alkalies, carbonates and bicarbonates.

Ferrocolin is a mixture of peptonized guaiacol-iron albuminate with syrup of thymol, employed in scrofula, phthisis, whooping-cough, etc.

Ferroleum is a 50 per cent. emulsion of cod liver oil containing in addition iron phosphate.

Ferromannin is a liquid preparation described as a "saccharo-mannite" of iron, "containing 1 grain of iron expressed as FeO" to the tablespoonful.

Ferrose is an iron-proteid-formaldehyde compound, containing 10 per cent. of Fe. Dose, 5 to 10 grains after meals. See caution under *formaldehyde.*

Ferrosol, also known as "liquor ferri oxydati natronati saccharati," is a hematinic containing 0.77 per cent. of iron and stated to be quite permanent and not altered by acids, alkalies or temperature changes. Dose, tablespoonful thrice daily.

Ferro-Somatose, also designated as *iron-somatose* and *iron-albuminose,* is a tasteless, odorless powder, readily soluble in water, and said to contain the "nutritious elements of meat" with 2 per cent. of iron organically combined. The quantities prescribed could contain very little nutriment.

Ferrostyptin is a double salt of hexamethylenetetramine hydrochlorate and ferric chloride, of the formula $(CH_2)_6H_4.HCl.FeCl_3$. It occurs in yellowish-brown crystals, containing 15 per cent. of iron and readily soluble in water. It is used as a styptic and antiseptic, chiefly in dental practice. See caution under *formaldehyde.*

Ferrozone is *ferrous vanadate,* introduced by Dr. B. Rohden and marketed as 3-grain sugar-coated pills. It is used as an alterative tonic. Dose, 1 or 2 pills three times a day.

Ferrugine is a solution of iron and manganese peptonate.

Fersan is claimed to be the iron compound present in the erythrocytes of fresh ox blood; chemically, a paranucleoproteid compound of iron. It is employed as a nutrient and tonic, in

doses of 30 to 90 grains per day. Marketed as powder and tablets, also as *iodo-fersan* tablets.

Fervin is a meat extract with iron, marketed in gelatin capsules.

Fetron is an ointment base introduced by Prof. Liebreich, in physical properties being between lanolin and petrolatum and containing 3 per cent. of stearic acid anilid.

Fibrolysin is a double-salt of *thiosinamine* (2 mols.) *and sodium salicylate* (1 mol.), introduced by F. Mendel as a succedaneum for thiosinamine hypodermically. As is known, thiosinamine is but slightly soluble in water, so that alcoholic solutions have to be employed and these are quite painful. The new compound occurs as a white powder easily soluble in water. Its solutions, however, are readily decomposed by air, and hence the medicament is marketed in ampullas containing 2.3 c. c. of a sterilized 15 per cent. solution (equal to 0.2 gram of thiosinamine). It is applied in lupus, chronic glandular swellings, to remove scars, etc.

Filmaron is the amorphous acid isolated by Kraft from oleoresin of male fern and regarded as the anthelmintic principle of the latter. It appears as a brownish-yellow powder, insoluble in water, slightly soluble in alcohol, but freely soluble in the remaining usual solvents. Dose, 8 to 12 grains, followed by a purgative.

Filmaron Oil is a 10 per cent. solution of filmaron, regarded as the active principle of male fern, in castor oil, marketed for greater convenience in dispensing, as filmaron in the dry state readily cakes and becomes difficult of manipulation. Dose (as an anthelmintic), 75 to 120 minims.

Filmogen, also known as *acetone-collodion*, *collosin*, and *liquor adhæsivus*, is a solution of pyroxylin in acetone and a fatty oil intended for use as a protective as well as a vehicle for dermic remedies.

Flavoiodin is a quinoline derivative credited with antipyretic and antiseptic properties.

Floricin is a product obtained from castor oil, which is miscible with mineral oils, and is intended, aside from technical uses, as an ointment and liniment base. It is a yellowish-brown, fluorescent liquid resembling castor oil; almost insoluble in alcohol and acetic acid, but takes up water readily and yields an ointment-like mass when triturated with a little water and an unstable emulsion when rubbed up with much water.

Fluinol (*fluorpinol*) is an alcoholic extract of pine needles impregnated with ethereal oils, used as an addition to baths, gargles and washes, also for inhalation and by atomization in various affections.

Fluoralbin is the name applied to water-soluble, flexible vaginal suppositories containing zymin (a dried medicinal yeast) and used in leucorrhea (fluor albus).

Fluoroformol (*fluoroform water; fluoryl*) is a 2.8 per cent. aqueous solution of fluoroform gas $CHFl_3$; a nearly tasteless and odorless, non-irritating liquid, recommended by Dr. Stepp in tuberculosis of various forms and used also in pneumonia. Dose, tablespoonful four times a day.

Fluorol is *sodium fluoride.*

Fluoryl. See *fluoroformol.*

Fluorrheumin, also designated as *antirheumin* and *antirheumatin,* is a 5 per cent. ointment of fluorphenetol, employed in rheumatism, lumbago, neuralgias, etc., 5 grams being rubbed in several times a day.

Fomitin is a cold-prepared fluid extract of the fungi fomes cinnamomeus and fomes igniarius; a reddish-brown, alkaline liquid of fungoid odor and slightly bitter taste, used in diseases of the bladder, dysmenorrhea, hemorrhoids, etc. Dose, 1 to 4 tablespoonfuls several times daily.

Formaldehyde (*formic aldehyde, oxymethylene*) is marketed in the form of an aqueous solution of about 35 per cent. strength under various trade names, the chief ones being *formalin, formochloral* and *formol.* The disinfectant power of formaldehyde is well known; like most of the efficient disinfectants it is highly poison-

ous. But few experiments have been made to utilize the solution as an internal disinfectant, but numberless formaldehyde compounds have been brought forward for medicinal use which are supposed to depend for what action they may have on the liberation of formaldehyde in the system. The proposed medicinal use of formaldehyde in any form opens an extremely grave question as to a certain ultimate effect. It has been suggested that the deadly and sight-destroying power of wood alcohol which is now well known, is due to its decomposition in the system into formic acid, this acid being the destructive agent. If this be so, may not formaldehyde be expected to yield the same destructive acid, it being an intermediate product in the change of wood alcohol to formic acid; in other words, by further oxidizing wood alcohol (which is methyl oxide more commonly known as methyl alcohol) we get formic aldehyde (oxymethylene) and by still further oxidation this is converted to formic acid; so that formaldehyde may afford a starting point for the development of the acid, without going back to wood alcohol. A most frightful feature in wood alcohol poisoning is destruction of sight, which has so often occurred; and this feature should naturally cause the utmost care as to the introduction into the system of anything which may yield the same result; or even the slightest impairment of vision. Slight changes in that respect which might be caused by medicine might easily be overlooked or ascribed to some other cause. In view of the facts and possibilities here presented, it has been thought necessary to add to descriptions of articles which may yield formaldehyde in the system by decomposition ("splitting up"), a caution referring to this paragraph, and in these have been included those with the methylene group, and formates from which formic acid might be set free; such cautions may possibly have been in some cases overlooked so the reader will do well to be on the alert in regard to the subject here as well as in other literature. Applications, it must be remembered, will introduce a medicament

into the system as well as usual internal administration.

Formaldehyde-Casein, also known as *formalbumin,* was a condensation product of formaldehyde and casein introduced a few years as a wound antiseptic, but latterly withdrawn from the market. See caution under *formaldehyde.*

Formaldehyde-Gelatin.—See *glutol.*

Formaldehyde, Para-.—See *para-formaldehyde.*

Formaldehyde-Tannin. — See *tannoform* and *formatan.*

Formaldehyde-Thiolin is a compound analogous to if not identical with *ichthoform;* see the latter. See caution under *formaldehyde.*

Formamine is another of the numerous trade names for *hexamethylenetetramine* (hexamethylenamine U. S. P.).

Formamint Tablets contain formaldehyde and menthol. They have been brought out as internal antiseptics. See caution under *formaldehyde.*

Forman (*chloro-methyl-menthyl ether*) is a chlorinated methyl ether of menthol of the formula $C_{10}H_{19}.CH_2.Cl$, and occurs as a colorless, slightly fuming, oily liquid, decomposed by water into formaldehyde, menthol and hydrochloric acid. Brought forward as an inhalant in catarrh. See caution under *formaldehyde.*

Formanilid (*phenyl-formamide*), $C_6H_5NH.CHO$, is a reaction product of anilin and formic acid; colorless or yellow crystals, soluble in water, alcohol, glycerin, or oils. It is brought forward as a local anesthetic and for insufflation in catarrh. See caution under *formaldehyde.*

Formasal is described as a condensation product of formaldehyde and salicylic acid, or *methylene-disalicylic acid.* It is used chiefly in the form of its salts, alum-formasal, bisformasal, etc. See caution under *formaldehyde.*

Formatan is a condensation product of formaldehyde and tannin, apparently identical with the older *tannoform.* It is used chiefly as an intestinal astringent and antiseptic, in doses of 5 to 15 grains several times daily, but it is serviceable also to arrest excessive perspiration. Marketed also in tablets. See caution under *formaldehyde.*

Formatol is a disinfectant dusting-powder said to contain about 12 per cent. of formaldehyde. See caution under *formaldehyde*.

Formazol is an "antiseptic, oxydizing inhalation remedy" for use in phthisis and bronchial catarrh; tablets containing according to reports about 80 per cent. of paraformaldehyde and small quantities of iodoform, chloral hydrate, terpinol and menthol. See caution under *formaldehyde*.

Formic Aldehyde.—See *formaldehyde*.

Formicin (*formaldehyde acteamide*) is a very hygroscopic substance, and hence marketed only as concentrated solution—a colorless, syrupy liquid specific gravity 1.240 to 1.260, miscible in all proportions with water, alcohol or chloroform, readily soluble in glycerin, sparingly soluble in ether, decomposed by acids and akalies readily and by water gradually, formaldehyde being liberated. It is used as a disinfectant and deodorant in abscesses, purulent wounds, cystitis, surgical tuberculosis, etc., in 2 per cent. solution. See caution under *formaldehyde*.

Formin is one of the many brand names for *hexamethylene-tetramine*, which see.

Formochlorol is a brand of *formaldehyde* solution that is used in the Trillat autoclave for general disinfection purposes; it contains some calcium chloride, ostensibly to make it give off the HCOH more satisfactorily.

Formoforin is a foot powder stated to consist of formaldehyde, thymol, zinc oxide, and starch. See caution under *formaldehyde*.

Formolid is an antiseptic solution consisting of formaldehyde solution, acetanilid, borogylceride, sodium borobenzoate, eucalyptol, thymol, menthol, wintergreen oil, alcohol and extract of witchhazel. It is generally used more or less diluted with water externally; internally in doses of ½ to 2 teaspoonfuls diluted, several times daily. See caution under *formaldehyde*.

Formopyrine (*methylene-diantipyrin*) is obtained by heating 5 parts of antipyrin with 4 parts of formaldehyde solution for several hours.

It forms white crystals soluble in alcohol and insoluble in water. It acts as an antipyretic and antiseptic. See caution under *formaldehyde*.

Formosapol is essentially a soap solution impregnated with formaldehyde, a product simliar to *lysoform*. See caution under *formaldehyde*.

Formylphenetidin (*formphenetidin, para-oxyethyl-formanilid*), $C_6H_4.OC_2H_5.NH.HCO$, is made by heating para-phenetidin hydrochlorate with anhydrous sodium formate and formic acid. It is used as an antispasmodic. Dose, 3 to 6 grains. See caution under *formaldehyde*.

Formyl Tribromide is *bromoform*.

Formysol is a trade name for a formaldehyde mixture containing also methyl alcohol, which latter is highly poisonous and causes blindness. See further caution under *formaldehyde*.

Formysols are, according to Schlieben, faintly yellow, liquid glycerin-potash soaps, containing 25 per cent. of formalin (equal to 10 per cent. of formaldehyde gas) and 10 per cent. of formalin (representing 4 per cent. of formaldehyde), respectively. They are used for disinfecting the hands and surgical instruments, as well as on wounds and in parasitic skin diseases. See caution under *formaldehyde*.

Fortoin is the name applied to *methylene-dicotoine*, a condensation product of formaldehyde and cotoine of the formula $CH_2(C_{14}H_{11}O_4)_2$, and forming yellow, tasteless crystals or powder of faint cinnamon odor and readily soluble in chloroform and alkalies, sparingly so in alcohol or ether, and insoluble in water. It is used internally as an antidiarrheal, and externally as an astringent antiseptic (0.6 to 1 per cent. solutions). Dose, 4 to 8 grains three times a day. See caution under *formaldehyde*.

Fortossan is a nutritive for small children consisting of the soluble vegetable phosphorus preparation known as phytin and milk sugar. It is marketed as 2.5 gram tablets.

Fossilin is a brand of *petrolatum*.

Fucol is a succedaneum for cod liver oil prepared from iodine-containing algæ and vegetable

oils; an olive-green, oily liquid, of a faint taste like that of roasted coffee. It is intended to serve also as a vehicle for medicaments ordinarily exhibited with cod liver oil (phosphorus, creosote, ferrous iodide, etc.).

Furol is a dried beer yeast and used in boils, certain skin diseases, etc. Marketed also as a 25 per cent. soap.

Furunculin is a dried beer-yeast introduced by H. de Pury and employed internally in general furunculosis, certain eczemas, dyspepsia, etc. Dose, 10 to 30 grains three times daily, with milk or beer, immediately before meals.

G

Gabianol is a brown oleaginous liquid obtained from bituminous shale and used in pulmonary diseases in the dose of 4 minims four to six times daily, in capsules.

Gacamphol.—See *guacamphol.*

Gaiacophosphal is *guaiacol phosphite*, a white powder of pungent taste, soluble in alcohol, glycerin, chloroform or water (moderately). It is employed as an antitubercular. Dose 3 to 15 grains three times daily.

Gajacyl.—See *guaiacyl.*

Gallacetophenone, also known as *trioxy-acetophenone*, *alazarin yellow*, and *methylketo-trioxybenzene*, $C_6H_2(OH)_3.CO.CH_3$, is a brownish-gray powder soluble in alcohol, ether and glycerin. It is used in parasitic skin diseases (chiefly psoriasis) in 10 per cent. ointment.

Gallactogen is a German nutritive made from casein.

Gallal is a trade name applied to basic *aluminium gallate*, which occurs as a brown powder insoluble in water but soluble in hydrochloric and tartaric acids. It is used as a drying antiseptic (mainly in ozena).

Gallanol (*gallanilid*, *gallic acid anilid*, or *gallinol*), $C_6H_5.NH.CO.C_6H_2(OH)_3+2H_2O$, is obtained by heating gallic acid with anilin and occurs as brownish crystals or powder soluble in alcohol,

chloroform and ether, and used as a substitute for pyrogallol in skin diseases (5 to 20 per cent. ointments, solutions or dusting powders).

Gallianin is a "solution of 5 volumes of ozone in 1 volume of harmless vehicle," recommended by French veterinarians in infectious pneumonia, influenza, etc., of horses, cattle and dogs. Dose, 1 to 20 c.c. once daily, intravenously.

Gallicin or *gallic acid methyl ester*, $C_6H_2(OH)_3$-$COO.CH_3$, forms a grayish-white crystalline powder soluble in alcohol or ether, and is employed as a dusting powder in eye diseases (chiefly conjunctivis).

Gallic Acid Anilid.—See *gallanol.*

Gallic Acid Methyl Ester is referred to under *gallicin.*

Gallinol is a synonym of *gallanol.*

Gallobromol or *dibromogallic acid*, $C_6Br_2(OH)_3$-$COOH$, is made by rubbing together 1 part of gallic acid and 2½ parts of bromine and recrystallizing from water, and forms a light-brown powder soluble in water, alcohol or ether. It is used internally as a nerve sedative and externally as an antiseptic astringent in 1 to 4 per cent. solution (in gonorrhea and cystitis), or as dusting powder or paste (in skin diseases). Dose, 10 to 30 grains, generally in solution with an acid syrup.

Galloformin, or *formin* (*hexamethylenetetramine gallate*) occurs as hard needles that are difficultly soluble in water, alcohol, ether or glycerin, and insoluble in chloroform or olive oil. It is intended for use internally and externally as an astringent antiseptic. See caution under *formaldehyde.*

Gallogen (*ellagic acid*), $C_{14}H_6O_8$, occurs as a yellow, odorless, tasteless powder, insoluble in all acid or neutral media, but soluble in alkalies. It is prescribed as an intestinal astringent. Dose, 15 grains; children 5 to 8 grains. Supplied also as 3-grain chocolate tablets.

Garantose is one of the many trade names for *benzoylsulphonic imide* (better known as *saccharin*).

Gasterin is a gastric juice obtained by Fremont from dogs.

Gasterine is a French *bismuth phosphate.*

Gastrin Tablets are said to consist of linden charcoal, magnesium carbonate and cascara sagrada.

Gastricin is a digestive powder reported to contain ammonium carbonate, ammonium chloride, potassium bitartrate, sal rochelle, crab's eyes, magnesium carbonate, magnesium citrate, magnesium lactate, sodium chloride, sodium sulphate, and sodium bicarbonate.

Gastrosote is defined as a digestant containing in 10 parts, 1 part of pepsin and 1 of hydrochloric acid combined with albumin. Dose, 4 to 8 grains.

Gaultherine (*asepsin*) is the "sodium salt of methyl salicylate," silky needles, of wintergreen odor and freely soluble in water, and used as antiseptic (1 to 2 per cent. solutions) and antizymotic. Dose, 1 to 5 grains well triturated with powdered liquorice.

Gazeol is stated to be a mixture of carbolic acid, acetone, benzin (of each 10 grams), tar (90 grams), naphtalin (1 gram) and concentrated ammonia water (1 liter), which when made is let stand for a week with occasional shaking and then decanted. It is used chiefly in whooping-cough, a little being poured into flat plates and allowed to evaporate.

Gelanthum is a water-soluble vehicle for dermics, a colorless paste consisting of equal parts of gelatin and tragacanth, together with sufficient of a mixture of equal parts of glycerin and rose water, besides a little thymol (as a preservative).

Gelasepsin is the name applied to a supposedly sterile solution of gelatin in physiological salt solution used hypodermically to arrest hemorrhage. Tetanus germs may exist in gelatin and are difficult to destroy. Fatal cases have resulted from imperfectly sterilized solutions.

Gelatin solutions have been used hypodermically in hemorrhage; this use, and possibly uterine or rectal injection also is attended with risk of tetanus infection. See *gelasepsin.*

Gelones and Tegones are plasters recommended by Bauer; the former are glycerin and gelatin preparations with which various medicaments are incorporated and which stick well on being moistened with water. Agar-agar serves as the vehicle in the tegones.

Gelatose-Silver is better known as *albargin;* see this.

Gelsemin and Gelseminine are two preparations from gelsemium, concerning which confusion exists among physicians as well as pharmacists. Gelsemin is a *resinoid*, occurring as a brownish-yellow powder. Gelseminine, $C_{22}H_{26}N_2O_3$, is an *alkaloid* and forms white crystals. Both articles are soluble in alcohol but insoluble in water; and their physiologic action is the same in kind but vastly different in degree. Gelsemin (resinoid) is given in doses of ⅛ to 1 or even 2 grains. The single dose of gelseminine (alkaloid) is 1/120 to 1/30 grain, and its maximum daily dose ⅙ grain; as antidotal treatment emetics, atropine, or strophanthin are used, besides artificial respiration.

Genoform, from the literature extant on the subject, appears to be a condensation product of acetyl-salicylic acid and formaldehyde intended for use in gout and rheumatism, neuralgia, etc. It occurs as a white powder of slightly acid taste, sparingly soluble in cold water, but freely soluble in alcohol, ether and hot water. It is split up in the intestines into salicylic acid, acetic acid, and formaldehyde. Dose, 6 to 8 grains every two or three hours, as powders usually. See caution under *formaldehyde.*

Gentianin is the crude bitter principle (gentianic acid or gentisin) of gentian; a dark-brown extract soluble in alcohol and given in doses of 4 to 15 grains thrice daily as a tonic.

Geoform, which has several trade aliases, will be described under its chemical designation, *methylene-diguaiacol.*

Geosote is *guaiacol valerianate* or *valeryl-guaiacol*, $C_6H_4(OCH_3)O.CO.C_4H_9$; a yellowish, oily liquid, of smoky odor and burning taste, soluble

in alcohol or ether. It is used as an antitubercular and an intestinal disinfectant. Dose, 3 to 10 minims, in capsules or milk, three times daily. Marketed also as 3-minim capsules.

Gerdal is described as a combination of beef juice, albumin and sugar; a grayish-yellow powder, used as a nutrient in doses of 3 teaspoonfuls three times a day, with other food or drink. Do not boil it.

Germol is an English disinfectant, a dark liquid, consisting of crude cresols.

Glandulen is prepared from the bronchial glands of sheep; a yellowish powder, which is marketed as 0.25 gram tablets, each of which represents 0.25 gram of fresh gland and which are employed in phthisis. Dose, 1 to 3 tablets three times daily.

Glidin is a wheat albumin containing 96 per cent. of pure albumin, 1 per cent. of salts, and 1 per cent. of lecithin. It occurs as an odorless and tasteless powder that swells but does not dissolve in water. It is intended especially for patients with diabetes or kidney disease, being used in making cake and bread or as an addition to the victuals. Dose, 2 to 3 tablespoonfuls per day; children, 1 tablespoonful daily.

Globon is a nutritive representing a combination of vegetable and animal paranucleins; a yellowish, odorless, and tasteless powder, insoluble in water but soluble in alcohol (particularly in the presence of a small quantity of organic acid). Dose, 1 to 3 teaspoonfuls, in soup, milk, etc.

Globularetin, C_9H_4O, is a cleavage product of globularin, possessed of purgative and diuretic properties.

Globularin, $C_{13}H_{20}O_8$, is a glucoside of globularia alypum and vulgaris. It occurs as a brownish-yellow powder soluble in alcohol, and acts like caffeine upon the heart and nervous system. It is used in rheumatism, gout, uremia, etc., generally combined with globularetin in the form of the French teinture prosoïde (globularin 0.5,

globularetin 0.7, alcohol [60 per cent.] 20.0; dose, 8 to 20 drops twice daily).

Glucochloral or *glycochloral.*—See *chloralose.*.

Gluside is a synonym of *saccharin.*

Glutannol is a compound of vegetable fibrin and tannic acid, prescribed as an intestinal astringent without action in the stomach (owing to its insolubility in water and acid liquids). Dose, 10 to 30 grains, in powders or suspension.

Glutektones are gelatin pencils medicated with alpha-eigon, zinc oxide, salicylic acid, or ichthyol, and used in eczema by rubbing over the wetted skin until a thin coating has been formed.

Glutoform is *glutol.*

Glutoid capsules are gelatin capsules hardened with formaldehyde and supplied in three degrees of resistance to gastric juice—weak, medium and strong. They are intended to be used for drugs that are to act only in the intestine. See caution under *formaldehyde.*

Glutol (*glutoform, formaldehyde-gelatin*) occurs as a white to yellowish, odorless, powder, which is used pure as a wound antiseptic liberating formaldyde on contact with the wound secretions. See caution under *formaldehyde.*

Gluton is a soluble, nongelatinizing dietetic made from gelatin. Dose, 40 grams per day, with fluid food. (Stir to a paste with a little water, add some more water, and heat gently until dissolved.)

Glycerinophosphates.—See under *calcium, iron, lithium, magnesium, potassium, quinine,* etc., glycerinophosphate.

Glybolid is a paste of glycerin, boric acid and acetanilid employed topically on pustules, abscesses, and the like.

Glycerin Salicylate.—See *glycosal.*

Glycocoll-phenetidine Hydrochlorate is better known as *phenocoll hydrochlorate,* which see.

Glycoform or *glycoformal* is a solution of formaldehyde containing about 15 per cent. of glycerin, which is used in a special generator for generating formaldehyde gas for disinfecting purposes.

Glycogen, $6(C_6H_{10}O_5)+H_2O$, is the final product of the digestion of starch and a constituent of normal livers. It forms a yellowish-white powder, soluble in water. Though formerly only of physiologic interest, glycogen has latterly been recommended by French physicians as a roborant in tuberculosis, emaciation, convalescence, etc. Dose, ½ to 2½ grains three times daily in pills.

Glycogenal is a substance related to glycogen, occurring as a yellowish powder soluble in water but insoluble in alcohol or ether. It is used as a tonic and bactericide in tuberculosis, puerperal fever, diabetic coma, etc. Dose, 5 to 8 grains twice daily; subcutaneously, 1 grain; by enema, 30 grains with 8 grains of ammonium carbonate and 2 ounces of water.

Glycophal is a compound syrup of glycerinophosphates, containing the glycerinophosphates of calcium, sodium, potassium, magnesium and iron, together with pepsin and diastase. Dose, a teaspoonful to a tablespoonful.

Glycophenin is a brand of *saccharin*.

Glycosal is the trade name for *salicylic acid glycerin ester* or ether, also known as *glycerin salicylate*, $C_6H_4OH.COO.C_3H_5(OH)_2$. The article forms a white powder readily soluble in alcohol, soluble in 100 parts of water, and moderately soluble in ether or chloroform, while being miscible with glycerin; alkalies and their carbonates readily saponify it. It is employed internally in place of sodium salicylate; also externally, as 20 per cent. alcoholic solution applied as a paint in articular rheumatism. Dose, 2 to 3 drams daily.

Glycosine is a brand of *saccharin*, claimed to be 550 times as sweet as cane sugar.

Glycosolvol (*antidiabeticum*) is a diabetes remedy obtained "by mutual chemical action of oxyproprionic acid ($C_3H_6O_3$) upon chemically pure peptone, and of sodium theobrominate upon the zymogen of the trypsin obtained from the pancreas of the sheep and the ox." It is marketed in two combinations that are used side by side: (1) glycosolvol with powdered jambul seed

and aromatics, with which a decoction is prepared fresh each time a dose is to be taken; (2) glycosolvol dissolved in a compound fluid extract of myrtle, the dose of which is a teaspoonful.

Glykaolin is a paste of glycerin and kaolin, that is used in the place of the old-fashioned flaxseed poultice.

Glyzine is the name applied to what appears to be a mixture of extract of glycyrrhiza and fluid extract of yerba santa, flavored with oils of nutmeg and coriander, and used as a vehicle for quinine, cascara, opium and other nauseous drugs.

Gomenol is the essential oil of melaleuca viridiflora, and hence closely analogous to oil of cajuput. It is used internally, chiefly in phthisis and bronchial and laryngeal affections; externally, by inhalation or spray (10 to 50 per cent. strength), in respiratory ailments. Dose, 4 to 8 minims several times daily, in capsules or syrup. Marketed also as 0.25 gram capsules.

Gonorol appears to be identical with *gonal*, *santalol*, and *arhéol*, and is described under the latter title.

Gonoryl Tablets are said to contain as their active constituent 33 per cent. of ranjan (ixora coccinea, an Indian rubiacea the root and twigs of which are employed in dysentery, fever and gonorrhea). They are employed in gonorrhea, 8 tablets per day being the ordinary dose.

Gonosan, also known as *kawa santal*, is a 20 per cent. solution of resin of kava kava in East India oil of sandalwood. It is marketed only as 0.3 gram capsules, 2 to 4 of which are given several times daily in gonorrhea.

Gorit is described under *calcium peroxide*.

Goudrogenin is a French dry wood-tar, occurring as brown chips or leaflets completely and readily soluble in water, forming therewith a solution possessing according to Dr. Goris all the properties of ordinary tar water.

Graminin is a new hay-fever serum.

Griserin is "loretin rendered soluble by the addition of alkalies and thus more suitable for internal administration"—probably *sodium lore-*

tinate (or *sodium-loretin*). It has recently been brought forward as a remedy in tuberculosis, as well as diphtheria, scarlet fever and other infectious diseases, boils, etc. Experiments by Drs. Friedberger and Oettinger with it in tuberculosis have given negative results. Dose, 3 to 10 grains three times a day.

Guaiacacodyl is a trade name for *guaicacol cacodylate*.

Guacamphol is the terse name for *guaiacol camphoric acid ester* or *guaiacol camphorate*, $C_8H_{14}(COO.C_6H_4.O.CH_3)_2$. The drug occurs as white needles without odor or taste; insoluble in water, moderately soluble in alcohol or chloroform. It is employed in tuberculosis, to arrest the night-sweats and diarrhea. Dose, 3 to 15 grains at bedtime.

Guaiacetin or *guacetin* is the trade name for *sodium pyro (brenz) catechin-monoacetate* or *sodium phenone acetate*, $C_6H_4.OH.OCH_2COONa$. The remedy occurs as a white, odorless, slightly bitter powder, which is soluble in 30 parts of water. It is employed in phthisis. Dose, 7½ to 15 grains three times daily, as powder or tablets. Marketed also as 0.5 gram tablets. Little or nothing has been heard of the article the past few years.

Guaiacol Benzoate is better known by the trade name *benzosol*, under which it is described.

Guaiacol Benzylic Ether.—See *brenzcain*.

Guaiacol Cacodylate (*cacodyliacol*) occurs as white or reddish-white crystals, soluble in water, alcohol, glycerin or oil, insoluble in ether, and of pungent taste. It is used subcutaneously in oily solution in tuberculosis. Dose, ½ to 1 grain.

Guaiacol Camphoric Acid Ester is described under *guacamphol*.

Guaiacol Carbonate, also known by the trade name *duotal*, $(C_6H_4OCH_3)_2.CO_3$, is obtained by passing gaseous carbon oxychloride through a solution of guaiacol in caustic soda solution. It forms a white, odorless, tasteless powder, representing 91½ per cent. of guaiacol and slightly soluble in alcohol but insoluble in water. It is

prescribed chiefly in phthisis, but also as an intestinal antiseptic in typhoid fever. Dose, 5 to 20 grains several times daily, though as much as 90 grains per day is often given; best taken as powders or tablets. Marketed also as 4½ and 7½ grain tablets. Guaiacol carbonate is incompatible with alkalies.

Guaiacol Cinnamate.—See *styracol.*

Guaiacol Glyceryl Ester is *guaiamar.*

Guaiacol Ethyl.—See *guethol.*

Guaiacol, Ethylenated, $CH_3O.C_6H_4O.C_2H_4.OC_6H_4OCH_3$, occurs as colorless needles, that are sparingly soluble in water but easily so in alcohol. It is prescribed in phthisis, like other guaiacol compounds. Dose, 7½ to 15 grains two or three times daily.

Guaiacol Ethylene Ether.—See *guaiacol, ethylenated.*

Guaiacol Iodoform is described as a solution of 1 part of iodoform in 4 parts of guaiacol and 1 part of almond oil; a reddish-brown, thick fluid, used diluted with 16 parts of olive oil by French physicians by injection in surgical tuberculosis and pleurisy—3 c.c. of the dilution per dose.

Guaiacol Monoglycerinic Ether is referred to under its trade name, *oresol.*

Guaiacol Phosphate (*phosphoric acid guaiacyl ether*), occurs as a white powder soluble in alcohol or chloroform but insoluble in water. It is an antitubercular. Dose, 1½ to 3 grains three times a day. It is also known as *biogaicol.*

Guaiacol Phosphite is described under its trade designation, *gaicophosphal.*

Guaiaform (*geoform*) is referred to under *methylene-diguaiacol.*

Guaiacol Piperidine.—See *guaiaperol.*

Guaiacol Salicylate (*guaiacol salol*), $C_6H_4O.CH_3.C_7H_5O_2$, forms white, tasteless crystals of salol odor and soluble in alcohol. It is used as an antitubercular and intestinal disinfectant. Dose, 15 grains several times daily, up to 2½ drams per day.

Guaiacol Tanno-cinnamate.—See *guatannol.*

Guaiacol Valerianate is described under its trade name, *geosote*.

Guaiacolin is another of the recently introduced syrups of potassium-guaiacol sulphonate or sulphoguaiacolate.

Guaiacyl or *gajacyl* is *calcium ortho-guaiacolsulphonate*, $(C_6H_3[OH].[OCH_3]SO_3)_2.Ca$; a bluish-gray powder soluble in water or in alcohol. Its 5 per cent. aqueous solution is violet-red, and is used hypodermically in quantities of 8 to 24 minims as a local anesthetic. Sometimes a 10 per cent. solution is employed.

Guaialin is defined as the "*benzoic acid ester of methylene-diguaiacol*, the empiric formula of which is $C_{24}H_{18}O_4$." It occurs as an odorless, nearly tasteless, greenish powder, containing 60 per cent. of guaiacol. It is employed as an internal antiseptic and antitubercular. Dose, 15 to 30 grains several times a day. Also marketed as 5 grain tablets. See caution under *formaldehyde*.

Guaiamar is the trade name for *guaiacol glyceryl ester*, $C_6H_4.OCH_3.OC_3H_7O_2$, which is obtained by the action of guaiacol upon anhydrous glycerin. The drug occurs as a white powder, of bitter aromatic taste; soluble in 20 parts of water, in alcohol, chloroform, or ether; decomposed by alkalies. It is prescribed as an intestinal antiseptic and antitubercular. Dose, 3 to 15 grains.

Guaiaperol or *guaiaperon* is a trade name applied to *guaiacol-piperidine* or *piperidine guaiacolate*, $C_5H_{11}NH.OH.C_6H_4.OCH_3$. The medicament occurs as colorless crystals that are soluble in water, alcohol or ether, and decomposed by acids or alkalies. It is used chiefly in phthisis. Dose, 2 to 5 grains several times a day.

Guaiaquin (*quinine guaiacol-bisulphonate*) is said to consist of equal molecules of quinine and guaiacolsulphonic acid; a yellow, bitter, sour powder, soluble in water, alcohol or diluted acids. It is prescribed as an antipyretic and antitubercular. Dose, 2 to 10 grains.

Guaiaquinol or *guaiakinol* is chemically *quinine dibromoguaiacolate*, a substance freely soluble in water and combining the therapeutic

properties of quinine, bromine and guaiacol and hence used as an antipyretic, sedative, and antitubercular. Dose, 8 to 20 grains.

Guaisotol is described as a "permanent, non-alcoholic syrup of guaiacol, containing 16 grains of guaiacol to the fluid ounce." Dose, 1 to 4 fluid drams.

Guayarsin is a syrup containing in each 10 grams 0.005 gram of arsenous acid and 0.2 gram of guaiacol combined with cinnamic acid and calcium hydrochlorophosphate. It is used in consumption chiefly.

Guderin is the name applied in Germany to Gude's elixir of iron and manganese peptonate ("pepto-mangan").

Guatannol or *guatannin* is chemically *guaiacol tannocinnamate*, a substance insoluble in the usual solvents and employed in phthisis and bronchial catarrh in the form of 0.5 gram pills (so marketed), 2 to 10 at a dose.

Guethol, chemically *pyrocatechin monoethyl ether* or *guaiacol-ethyl*, $C_6H_4.OC_2H_5OH$, is known also as *æthacol, ajakol, homo-cresol*, and *thanatol;* a nearly colorless, oily liquid, of aromatic odor and crystallizing in the cold, and soluble in alcohol, ether or chloroform. It is intended as a succedaneum for guaiacol. Dose, 4 to 8 minims several times a day, in pills.

Gujasanol is the *hydrochlorate of diethylglycocoll-guaiacol*, $C_6H_4.OCH_3O.CO.CH_2.N(C_2H_5)_2.HCl$, occurring as white crystals of faint guaiacol odor and a salty, bitter taste, readily soluble in water, sparingly soluble in alcohol and insoluble in ether. It is used in tuberculosis. Dose, 15 to 45 grains, in wafers, or subcutaneously in 20 per cent. solution.

Gurmin is an antitoxic serum used in glanders of horses; it contains ½ per cent. of carbolic acid as a preservative. Dose, subcutaneously, 25 to 50 c.c.

Gynaicol is the name applied to tablets of undivulged composition, intended for use in profuse menstruation.

H

Haeminol is said to consist of hemoglobin, paroglobulin and the phosphates of blood, but free from fibrin and urates.

Haemadurol is represented to be an alcohol-free iron and manganese preparation.

Haemalbumin (Dahmen) is an iron compound prepared from blood, consisting of hematin, hemoglobin, serum albumin and paraglobulin, together with the mineral salts of blood. It occurs as a blackish-brown powder of cinnamon odor and soluble in hot water and diluted alcohol. It is used as a blood builder. Dose, 15 to 30 grains thrice daily.

Haeman is a liquid peptonized iron sulphocyanate (rhodanide), introduced by M. Baum as a readily absorbable iron preparation.

Haemanutrid is a fluid form of *sanguino* (which seems to be inspissated blood), said to contain 70 per cent. of hemoglobin, 20 per cent. of glycerin, and 10 per cent. of cognac.

Haemartol is an iron preparation similar to haematogen and used like the latter.

Haematacid is a preparation analogous to haemalbumin.

Haematogen (Hommel) is essentially germ-free evaporated blood obtained by a very tedious process. It is marketed only as an elixir containing in each pint 4 oz. of glycerin and 2 oz. of Malaga wine. It is intended as a "blood-builder." Dose, a teaspoonful to a tablespoonful two or three times a day before meals.

Haematol is a sterilized pure hemoglobin.

Haemoantitoxin is the name applied to a 20 per cent. solution of Prof. Maragliano's tubercle antitoxin. The article occurs as a clear, red liquid, containing besides the active antitoxin, alcohol, glycerin, hemoglobin and aromatics. Dose, a tablespoonful three or four times daily, before

meals. It is advertised as specially serviceable as a prophylactic of tuberculosis.

Haemoferrogen is what Sneek calls an article obtained by shaking defibrinated blood with ether so as to remove the fat, evaporating in vacuo, drying and powdering; a dry, odorless powder, 150 grams of which correspond to 1 liter of haematogen.

Haemoferrum is an aromatic solution containing 4 grains of oxyhemoglobin to the teaspoonful. It is intended as a "blood-builder." Dose, 1 to 2 teaspoonfuls thrice daily.

Haemoform is the name given by Libbertz to his hematogen, a reddish-brown powder soluble on stirring in water, and marketed in dry, inspissated and liquid forms.

Haemogen is a "neutral, aromatic solution of peptonized manganese and iron, with free pepsin and hemoglobin;" a "blood-producer," given in doses of a teaspoonful to a tablespoonful three or four times a day, before meals.

Haemomaltin or *oxyhaemoglobin-maltose* is stated to consist of the active constituents of haematogen and of malt.

Haemoprotagor or *haematoprotagon* is a homolecithin said to consist of nerve substance and hemoglobin and marketed as tablets.

Haemose is dried, pepsinized and hydrochlorated blood-albumin; a light reddish-brown, almost odorless and tasteless powder, soluble in alkaline solutions. It is used as a nutritive. Dose, a teaspoonful two or three times daily, in cold milk; hot liquids must be avoided.

Haemostat is a Swiss nosebleed remedy consisting of quinine sulphate, tannic acid, and benzoinated lard.

Haemostyptic Brüninghausen is a fluid extract of a mixture of two parts of ergot and one part of golden seal, prepared with alcohol, ether and glycerin, in vacuo under pressure. It contains 2.6 per cent. of total alkaloid, and is given as an internal hemostatic in the dose of 30 drops four times daily.

Haemotrophin is a generic name for a line of hemoglobin preparations containing also glycerinophosphates—plain, arsenated, ferrated, gauiacolated, and iodized haemotrophin.

(For other articles whose names may sometimes be spelled with *hae*, see under *he*.)

Haloform is a menthol-formaldehyde preparation, which is used like forman in coryza. See caution under *formaldehyde*.

Hardiella is a disinfectant similar in composition to the liquor cresoli saponatus of the German Pharmacopeia.

Hedonal (*methylpropylcarbinol-urethane*) occurs as a white powder, almost insoluble in water but soluble in the remaining organic solvents, and of faint aromatic odor and taste. It is prescribed as a mild hypnotic. Dose, 15 to 30 grains, as powders or in capsules or wafers.

Helcosol is described under *bismuth pyrogallate*.

Helfin is a vermifuge prepared by Dieterich from oleoresin of male fern and castor oil, put up in capsules, and accompanied by a set of capsules containing oil of turpentine and castor oil.

Helmitol is chemically *hexamethylenetetramine anhydro-methylenecitrate*, $C_7H_8O_7(CH_2)_6N_4$, forming colorless crystals or white powder soluble in 15 parts of water, almost insoluble in alcohol and ether. It is used as a urinary disinfectant and acidifier, chiefly in cystitis, urethritis, and phosphaturia. Dose, 15 grains three or four times daily, in water. Acids slowly decompose it. Alkalies very easily so, with the formation of formaldehyde. Helmitol is identical with *new urotropin*. See caution under *formaldehyde*.

Hemapoine is an "easily assimilable blood-making tonic, indicated in all cases of anemia."

Hemarobin is a tonic and reconstructive, representing 25 per cent. of cod liver oil, combined with the hypophosphites of sodium, calcium, potassium, iron and manganese, with pepsin. Dose, 2 to 8 drams.

Hemicranin is a mixture of 5 parts of phenacetin, 1 caffeine, and 1 citric acid, and used as an analgesic and dental obtundent. Dose, 10 to 15 grains.

Heminal is a "blood-iron albuminate, free from fibrin, urea, and all excretory products, and containing 0.25 to 0.3 per cent. of metallic iron in soluble and assimilable form;" a dark-brown powder, of faintly acid taste. Dose, 5 to 15 grains thrice daily, in capsule or warm water.

Hemisine is an English trade name for what is claimed to be the active principle of the suprarenal capsule, marketed as soloids and tabloids. The action and uses of this principle were described under *adrenalin*.

Hemogallol is derived from hemoglobin by reduction with pyrogallol, and occurs as a reddish-brown, insoluble powder. It is advertised as an assimilable organic iron compound. Dose, 4 to 8 grains before meals, in powders with sugar or as 4-grain tablets (marketed also as such).

Hemol is hemoglobin deoxidized by zinc, a dark-brown insoluble powder employed as a "blood-builder" in doses of 2 to 8 grains.

Hemol, Arsenated.—See *arsenhemol*.

Hemol Bromide is described under *bromohemol*.

Hemol, Cuprated.—See *cuprohemol*.

Hemol, Iodized, is referred to under *iodohemol*.

Hemostatin of this market is a 1:1000 solution of the active constituent of the suprarenal gland. (See *adrenalin*.) Abroad the name applies to a tribromphenol-bismuth like xeroform but containing less bromine.

Henriettol, also designated as *creosote-calcium oxysulphuret*, is a tuberculosis remedy marketed as dragees. In the system it is said to give off hydrogen sulphide that destroys the virulence of the bacilli, and to form CaOCl, which latter, it is maintained, imparts alkalinity and resisting power to the blood.

Heparaden is a dried extract of pig's liver, 1 part of which represents 2 of the fresh organ.

It is used chiefly in jaundice. Dose, 30 to 60 grains thrice daily, as tablets.

Heritine is an ether-soluble alkaloid isolated by Gehe from heritiera japonica, which is indigenous to the Sunda islands. It is said to act as an anodyne and nerve-sedative, but no dose-statements are given. *Heritine Marpmann* is a liquid extract of the root of heritiera, containing about 45 per cent. of alcohol, and without special taste or odor. Dose, 5 to 10 drops before breakfast.

Hermitine is a French disinfectant solution said to be obtained by the electrolysis of sea water.

Hermophenyl is the name adopted for *mercury-sodium phenoldisulphonate*, $C_6H_3.OHg(SO_3Na)_2$, which occurs as a white powder containing about 40 per cent. of mercury, soluble in 5 parts of water, and insoluble in alcohol. It is used as an antiseptic, in 0.1 to 2 per cent. solutions, and internally and by intramuscular injection in syphilis. Dose by mouth, ¼ to ½ grain thrice daily; by injection, 30 to 60 minims of a 1 per cent. solution once a day.

Herniarin, $C_{34}H_{38}O_{19}$, is a glucoside of herniaria glabra, believed by Grein to be the active principle and a strong diuretic.

Heroin Hydrochloride or Hydrochlorate, is a salt of the *diacetic ester of morphine* (diacetylmorphine), of the formula $C_{17}H_{17}NO.O(COCH_3).O(COCH_3).HCl$. It occurs as a white, neutral, bitter powder, soluble in 2 parts of water. It is used as a succedaneum for morphine, more particularly in coughs, dyspnea, and morphinism. Dose, 1/24 to 1/12 grain, in solution. It should not be dispensed with sodium bicarbonate, ammonium carbonate or other alkaline bodies, because of precipitation ensuing; and in preparing hypodermic solutions, the water should be sterilized. The use of heroin is reported to have been followed in some cases by persistent vomiting. Antidotes, the same as of morphine.

Heroline is a 33⅓ per cent. emulsion of petrolatum, containing besides in each fluid ounce

heroin hydrochlorate 1/16 grain, calcium hypophosphite 8 grains, and sodium hypophosphite 8 grains. It is used mainly in phthisis and chronic bronchitis. See caution as to heroin under the preceding title.

Hetocresol is *cinnamyl-meta-cresol* or *meta-cresol cinnamic acid ester*, and occurs as a white to yellowish powder, insoluble in water but soluble in chloroform, ether or hot alcohol. It is used locally in surgical tuberculosis, as dusting-powder, or as ethereal spray with or without iodole or iodoform.

Hetoform is *bismuth cinnamate*, which see.

Hetol will be described under its chemical name, *sodium cinnamate*.

Hetol-caffeine is a trade name for *caffeine sodiocinnamate*, which see.

Hetol-sanguinal Pills contain besides sanguinal 1 milligram of hetol (sodium cinnamate) each, and are used in tuberculosis—1 gradually increased to 6 daily.

Hetralin is the trade name applied to *dioxybenzene-hexamethylenetetramine*, or *resorcin-hexamethylenetetramine*, $C_6H_4(OH)_2.(CH_2)_6N_4$, which occurs as white, permanent needles that are soluble in 14 parts of water and contain 60 per cent. of hexamethylenetetramine (urotropin, formin, etc.). Dr. R. Ledermann introduced the article as a urinary disinfectant like urotropin. Dose, 8 grains three or four times a day. See caution under *formaldehyde*.

Hexamethylenetetramine, $(CH_2)_6N_4$, is a condensation product of ammonia and formaldehyde, known by various trade names—*aminoform*, *ammonio-formaldehyde*, *cystamine*, *cystogen*, *formin*, *hexamine*, *uristamine*, *uritone*, *urotropin*, etc. It occurs as a white, alkaline, crystalline powder, readily soluble in water but sparingly so in alcohol. It is prescribed as a urinary disinfectant in cystitis, bacteriuria, urethritis, etc., sometimes as a uric acid solvent in gout and rheumatism. Dose, 5 to 15 grains two or three times daily, well diluted, before meals. Hot water and acid syrups should be avoided lest decomposition of the drug

ensue. It is marketed also as 5 and 7½ grain tablets by different manufacturers. See caution under *formaldehyde*.

Hexamethylenetetramine Anhydro-Methylene Citrate is better known as *helmitol* and *new urotropin*, and is described under the former title.

Hexamethylenetetramine Bromethylate is a synonym of *bromalin;* see this title.

Hexamethylenetetramine Citro-silicate. See *silin*.

Hexamethylenetetramine Gallate.—See *gallo-formin*.

Hexamethylenetetramine Oxymethylsulphonate is referred to under its trade name, *thial*.

Hexamethylenetetramine Salicylate. — See *saliformin*.

Hexamine is one of the numerous trade names for *hexamethylenetetramine*, which see.

Hippol is what A. Nicolaier, the introducer of urotropin, calls *methylene-hippuric acid*, which product is, however, not really an acid, but probably an ester of hippuric acid, of the constitution $C_6H_5.CO.N:(CH_2)_2.CO.O$. It forms colorless, odorless and tasteless prisms, soluble in about 500 parts of water and readily soluble in chloroform. It is recommended as a urinary disinfectant, readily splitting off formaldehyde in the system. Dose, 15 to 30 grains three or four times daily. See caution under *formaldehyde*.

Hirudin is a preparation of the leech, said to contain the constituent of leeches' heads that inhibits coagulation of the blood, 1 milligram of which suffices permanently to keep 7.5 c.c. of blood uncoagulated without affecting its composition. It occurs as brown scales or masses, soluble in water but insoluble in alcohol or ether. It is used in certain diseases of women, generally ⅙ grain dissolved in 30 minims of distilled water or physiologic salt solution; also technically.

Histogenol is a mixture of 5 parts of disodium methylarsenate and 20 parts of nucleinic acid derived from herrings. It has been recommended by French physicians in tuberculosis.

Histosan is a consumption remedy, the chief constituent of which is a guaiacol-albumin compound.

Holocaine Hydrochlorate is a salt of *paradiethoxyethenyl-diphenylamidine*, of the formula $OC_2H_5.C_6H_4.NH.C.CH_3.N.C_6H_4.O.C_2H_5.HCl$; a white, odorless, bitter powder, soluble in 50 parts of water, and freely soluble in alcohol. It is used as a local anesthetic, like cocaine, chiefly on the eye (in 1 per cent. solution). It is extremely sensitive to alkalies, hence its solutions should be made in porcelain capsules and kept in porcelain containers or in bottles that have been treated with hydrochloric or sulphuric acid (to remove the alkali present in the glass as far as possible) and thoroughly rinsed in distilled water; only distilled water should be used.

Homocresol is a synonym of *guethol;* see this title.

Honthin is a keratinized tannin albuminate used as an intestinal astringent; a grayish-brown odorless, tasteless, insoluble powder, slowly decomposed by alkalies. Dose, 5 to 30 grains several times daily.

Hopogan is the German equivalent of *biogen.*

Huminal is a fluid, alkaline bog-earth extract used locally in rheumatism, gout, etc.

Huxsal is described as "a double salt, partially a chemical combination and partially a mechanical mixture of antiseptic materials, which in 2 per cent. solution is equal as a germicide to mercury bichloride."

Hydracetin.—See *acetylphenylhydrazin.*

Hydragogin is a vegetable diuretic consisting of "tincture of digitalis 1.5 parts, tincture of strophanthus 2.5 parts, scillipicrin and scillitoxin, the active principles of squill, and 0.5 part of oxysaponin;" a dark-brownish liquid which foams on being shaken. Dose, 7 to 15 drops every three or four hours, in sweetened water.

Hydrargol is a trade name for *mercury succinimide,* marketed in tubes containing 1 c.c. of solution corresponding to 7 milligrams of metal-

lic mercury. The article is said to cause no pain when injected intramuscularly.

Hydrargotin is a brand name for *mercury tannate.*

Hydrargyrol is *mercury para-phenolsulphonate*, $C_6H_4.OH.SO_3Hg$; reddish scales, of peppermint odor and soluble in water and glycerin. It does not react with the ordinary tests for mercury or phenol nor coagulate albumin. It is recommended as a substitute for corrosive sublimate.

Hydrastine, $C_{21}H_{21}NO_6$, is the white alkaloid of hydrastis canadensis (golden seal); small white crystals soluble in about 2 parts of chloroform, 85 of ether, 120 of alcohol, and very slightly in water. It is used as a tonic and uterine hemostatic. Dose, ¼ to 1 grain, in pills. Maximum dose, 1½ grains. Its *hydrochlorate* is a white powder freely soluble in water, and hence used also externally as an astringent in skin, genito-urinary, and eye inflammations, in 0.1 to 1 per cent. solutions or ointments.

Hydrastone is "an alkaline digestive representing the digestant properties of hydrastis, xanthoxylum, etc., in alkaline medium." It should not be mistaken for hydrastine, the white alkaloid of hydrastis.

Hydrocerin is an ointment base consisting of wax, petrolatum, and water.

Hydrocine is a pancreatized compound syrup of various essential oils, thymol, and cinnamic aldehyde, extolled for use in tuberculosis.

Hydrogen Peroxide in powder form is the designation applied to a compound said to have the composition $B_2O_4Na_2.2H_2O_2$, 25 grams of which dissolved in 1 liter of water at ordinary temperature yield a solution containing between 2 and 3 per cent. by volume of H_2O_2. For stronger solutions warm water is required. The solubility is increased by magnesium or potassium sulphate.

Hydronal is another name for *viferral.*

Hydrosol is an aqueous solution of collargol (colloidal mercury).

Hypnal is the terse name for *chloral-antipyrin*, or *monochloral-antipyrin*, $CCl_3.CH.(OH)_2.C_{11}H_{12}N_2O$; colorless crystals, soluble in 15 parts of water. It is used as a hypnotic and analgesic. Dose, 15 to 30 grains, one to three times daily.

Hypnalgine is an antipyretic and anodyne described by the makers as a coal-tar product, occurring in white, crystalline powder of slightly sweetish taste and soluble. Its chemical composition is not fully stated. Dose, 5 to 15 grains. Marketed also as 5-grain tablets and in combinations.

Hypnoacetin is chemically *acetophenone-acteyl-para-amidophenol ether, a condensation* product of para-acetamidophenol with phenol and glacial acetic acid. It occurs as shining leaflets readily soluble in water, insoluble in alcohol, and employed as an antipyretic and hypnotic. Dose, 3 to 5 grains.

Hypnone (*acetophenone, phenyl-methyl-ketone*, or *benzoyl-methide*), $C_6H_5.CO.CH_3$, occurs as a colorless, oily liquid, of pungent taste, specific gravity 1.028, and soluble in alcohol, ether, chloroform, or oils; insoluble in water. It acts as a hypnotic, but is not often prescribed nowadays. Dose, 2 to 6 minims, in capsules or emulsion. It becomes crystalline on exposure to a low temperature.

Hypnopyrin, originally defined as a chlorine derivative of quinine, is, according to French authorities, a mixture of certain quinine salts. It is very bitter, and soluble in water, alcohol, and acids. Dose, 4 to 8 grains thrice daily.

Hyrgolum (*colloidal* or *soluble mercury, mercury colloid*) is a nearly black substance, quite freely though not completely soluble in water, insoluble in alcohol or ether. It is used as a succedaneum for the mercurials internally as well as by inunction (10 per cent. ointment). Dose, ½ to ¾ grain thrice daily, in pills; children, 3 to 20 drops of a 1 per cent. solution.

Hysterol is another trade name applied to *bornyl valerianate;* see *bornyval* for properties, etc.

I

Ialine is advertised as "a liquid disinfectant containing 25 per cent. of tar acids, besides other antiseptic properties."

Iatrol is a "combination of iodine with coal tar derivatives" introduced some years ago here as a succedaneum for iodoform as a wound antiseptic; a grayish-white, odorless powder.

Ibit is chemically *bismuth oxyiodotannate;* a greenish-gray, odorless, tasteless, insoluble powder, used like iodoform as a wound antiseptic.

Ibogaine Hydrochlorate, obtained from the root of tabernanthe iboga, an apocynea indigenous to the western coast of tropical Africa, has been recommended by French physicians as a powerful nervine of service, administered in dragees or pills, in neurasthenia, influenza, cardiac affections, and diphtheria. Dose, daily, ⅛ to ½ grain.

Ichden is the name of a Swiss product claimed to be identical with ichthyol.

Ichthalbin (*ichthyol albuminate*) is a compound of ichthyol and albumin, 4 parts of which correspond to 3 parts of commercial ichthyol. It occurs as a grayish-brown, odorless, nearly tasteless powder, insoluble in the usual solvents. It is used chiefly as a succedaneum for ichthyol internally, but also as a vulnerary (pure). Dose, 10 to 30 grains two or three times daily. Marketed also as 5-grain tablets.

Ichthammon is the name adopted for a German product purporting to be identical with ichthyol.

Ichthargan (*ichthyol-silver, silver sulphoichthyolate, silver thiohydrocarburosulphonate*) occurs as a brown, odorless, hygroscopic powder, containing about 30 per cent. of silver, and soluble in water, glycerin or diluted alcohol, but insoluble in chloroform or ether. It is used as an astringent, antiphlogistic, and bactericide, mostly in ⅛ to 5 per cent. solutions or 1 to 10 per

cent. ointments, or pure. Dose, 1/24 to ¼ grain, in solution. Its solutions should be dispensed in amber-colored bottles.

Ichthermol (*ichthyol-mercury, mercury sulphoichthyolate*) is a dark, odorless powder, insoluble in water and intended as a wound antiseptic as well as internal antisyphilitic. It contains 24 per cent. of mercury.

Ichthoferrin is synonymous with *ferrichtol.*

Ichthoform (*ichthyol-formaldehyde*) is a blackish-brown, almost odorless and tasteless, pulverulent, insoluble compound of ichthyol and formaldehyde, used chiefly as an intestinal disinfectant, but to a limited extent also as a wound antiseptic. Dose, 15 to 30 grains three or four times a day, in wafers or powders. Applied externally pure or diluted with talcum, etc. See caution under *formaldehyde.*

Ichthogen is another product stated to be the same as ichthyol.

Ichthosin is a compound of ichthyol and eosin intended to yield flesh-colored skin ointments.

Ichthosote Pills each contain 1½ grains of ichthyol and ⅔ grain of carbonated creosote flavored with peppermint oil. Used in tuberculosis.

Ichthyol is a drug defined as "*ammonium sulphoichthyolate*" yet not sufficiently characterized chemically and the source of which is the distillation product of a bituminous shale; a thick, brown, liquid, of disagreeable bituminous odor and taste, and somewhat variable composition—according to reports, containing besides the active constituent about 50 per cent. of water, 5 to 7 per cent. of ammonium sulphate and 1 per cent. of a volatile oil to which the penetrating odor is due. It is soluble in water, insoluble in undiluted alcohol or ether, and miscible but not soluble in glycerin or oils. It is used, as is known, mostly in skin diseases and gynecological affections, pure or in 5 to 50 per cent. ointments, paints, etc., and to a small extent also internally in phthisis, rheumatism, etc. (It has a horrid taste and produces disagreeable eructations). Dose, 3 to 30 minims three times daily, in capsules

or pills. Ichthyol gives precipitates with metallic salts, acids, and alkaloidal salts, and is decomposed by alkali hydrates and carbonates, and by iodine in ointment form.

Ichthyol Albuminate.—See *ichthalbin.*

Ichthyol, Austrian, is *petrosulfol.*

Ichthyol-formaldehyde.—See *ichthoform.*

Ichthyolidin (*ichthyol-piperazin, piperazin sulphoichthyolate*) is a blackish-brown powder, of faint tarry odor and bitter, unpleasant taste. and almost insoluble in the usual solvents. It was introduced by Dr. F. Dorn as a gout remedy. Dose, 15 grains three or four times daily, in 0.25 gram sugar-coated tablets (so marketed).

Ichthyol-iron.—See *ferrichtol.*

Ichthyol-mercury is *ichthermol.*

Ichthyol-piperazin.—See *ichthyolidin.*

Ichthyol-salicyl is the generic name for three ichthyol mixtures containing respectively 25, 33⅓, and 50 per cent. of sodium salicylate, and occurring as light-brown to dark-brown hygroscopic powders or masses not clearly soluble in water; they are used in rheumatism, tuberculosis, etc., externally and internally. Dose of 50 per cent., 15 to 30 grains per day.

Ichthyol-silver is better known as *ichthargan.*

Igazol is a mixture of paraformaldehyde and some iodine compound, used by Prof. Cervello by inhalation in phthisis. It is vaporized in a special apparatus; under the influence of heat formaldehyde and iodine are given off. Two to 9 grams are used to an ordinary room. See caution under *formaldehyde.*

Imidiod is obtained by heating para-ethoxyphenyl-succinimide with potassium iodide and iodine in diluted acetic acid, and occurs as a blackish powder that is used as a wound antiseptic like iodoform.

Indoform (*salicyl-methylene acetate*) is obtained by the action of formaldehyde upon acetylsalicylic acid, and occurs as a white powder, of sweetish, astringent taste, sparingly soluble in cold water. In the intestine it is said to liberate

formaldehyde, and is intended for use especially in gout and neuralgias. Marketed as 0.5 gram tablets, 1 to 3 of which are taken thrice daily with meals. See caution under *formaldehyde*.

Infantin is a German infant food.

Intestin is described as a mixture of naphtalin (50), bismuth benzoate (50) and vanillin (½), that is used as an intestinal antiseptic in doses of 8 to 15 grains several times a day.

Iodalbacid (*iodized albumin*) is an iodine substitution compound of albumin, containing 10 per cent. of iodine. It occurs as yellowish powder, soluble in water, and is used in place of alkaline iodides internally. Dose, 15 to 45 grains thrice daily, in tablets.

Iodalgin is the name applied to a French odorless, water-soluble succedaneum for iodoform, containing 50 per cent. of iodine.

Iodalia is a saccharated iodine-tannin compound of French manufacture. It occurs as yellow, vermiform concretions, of a faint balsamic odor and purely sweet taste, soluble in water, and containing 1.2 per cent. of iodine. It is intended as an efficient yet pleasant form of iodine for internal administration in cases of syphilis, scrofula, arterio-sclerosis, tuberculosis, etc. Dose, 1 to 2 teaspoonfuls three times a day.

Iodamyl is *iodized starch*.

Iodamyloform is a compound of starch, formaldehyde and iodine, and is used as a wound antiseptic. See caution under *formaldehyde*.

Iodan is defined as a solution of iodine in goose oil (adeps anserini), introduced by Dr. E. H. Shields as a readily penetrating and easily assimilable iodine preparation for topical as well as internal use. It is marketed in two strengths: 10 per cent., designed for external use; and 25 per cent., intended for internal use, and supplied in 5-minim and 10-minim capsules, 4 to 12 of which constitute the ordinary daily dose.

Iodcartan and Iotan.—See under *nebulates*.

Iodine Trichloride, ICl_3, occurs as a yellow, volatile, deliquescent powder, of very irritating odor, and soluble in water or alcohol. It is oc-

casionally prescribed as an antiseptic solution or as an antifermentative; externally, in 1:1000 to 1:200 solution; internally, in the dose of a teaspoonful of a 1:1000 solution. Its solutions should be dispensed in dark-amber bottles.

Iodine-vasogen.—See under *vasogen*.

Iodipalms are iodized fat preparations, analogous to iodipin and containing 10, 20, and 30 per cent. of iodine respectively. They are employed as succedanea for the alkali iodides—subcutaneously, internally or by enema. Dose per os (10 per cent.), 1 to 4 drams in emulsion, thrice daily.

Iodipin is an iodine addition product of the fatty acids of sesame oil marketed in two strengths, containing 10 and 25 per cent. of iodine respectively, and occurring as thick, yellow to brownish-black oils. They are prescribed as substitutes for the alkali iodides where these are not borne well. The 10 per cent. article is mostly given internally, while the 25 per cent. strength is used chiefly subcutaneously and by inunction. The ordinary dose of the former is 1 to 4 fluid drams three or four times a day; of the 25 per cent., 20 to 60 minims. Iodipin is best kept exposed to light. In the cold it gets turbid.

Iodoacetone is a solution of 2 parts of iodine in 5 of acetone, recommended by Prof. Chantemesse locally in place of iodine tincture, particularly in the treatment of boils. When freshly made it looks like iodine tincture, but in a fortnight it becomes black and thick. A new product is more irritating than an old one.

Iodocasein is a compound of iodine and casein occurring as a yellowish powder and used as a wound antiseptic.

Iodocin is one of the many succedanea for iodoform.

Iodocol or *iodokol* is a compound of iodine and guaiacol that is used in phthisis, chronic bronchitis, etc., in doses of 3 to 6 grains four or five times a day.

Iodocresine.—See *traumatol*.

Iodocrol (*carvacrol iodide*) is analogous chemically to aristol but made from carvacrol instead of thymol. It occurs as a light, odorless powder, soluble in ether, chloroform and oils, and is used as a substitute for iodoform.

Iodo-eigon.—See under *eigons.*

Iodo-ethylene is described under *diiodoform.*

Iodo-eugenol (*eugenol iodide*) was introduced by E. Liotard as a succedaneum for aristol of more powerful disinfectant action. It forms a reddish powder, of slight eugenol odor, insoluble in water, slightly soluble in alcohol, and quite readily so in ether and fatty oils.

Iodoferratin is ferratin with 6 per cent. of iodine; a reddish-brown, neutral powder, which is prescribed in scrofula, rickets and other ailments in which iodine and iron are indicated. Dose, 4 to 10 grains.

Iodoferratose is a 5 per cent. syrup of iodoferratin, intended to replace syrup of ferrous iodide. Dose (adult), tablespoonful two to four times daily.

Iodo-fersan Pastilles each contain 0.1 gram of potassium iodide and 0.4 gram of fersan. (See *fersan.*)

Iodoformal (*iodoformin ethyl iodide*) results from the action of iodoformin on ethyl iodide, and forms a heavy, yellow powder of faint iodoform odor and intended for use like iodoform. See caution under *formaldehyde.*

Iodoform Albuminate.—See *iodoformogen.*

Iodoform-anilin is a solution of iodoform in pure anilin ("anilin oil"), recommended by Dr. A. A. Gray in suppurating ear catarrh; 4 or 5 minims (not more) are introduced on cotton two or three times a week, the pledgets being removed in five minutes. It should be kept in dark-amber bottles; when of a crimson color from age, it is unfit for use.

Iodoformin is *iodoform-hexamethylenetetramine*, $CHI_3(CH_2)_6N_4$; a whitish powder, with a slight iodoform odor, and insoluble in water, alcohol, or ether. It contains 75 per cent. of iodoform, which is liberated on contact with wound

secretions. It is used as a wound antiseptic. See caution under *formaldehyde*.

Iodoformin Ethyl Iodide is *iodoformal*.

Iodoformogen (*iodoform albuminate*) is a fine, yellow powder, smelling slightly of iodoform, of which it contains 10 per cent. combined with albumin. It is used as a dusting powder on wounds in place of iodoform.

Iodogallicin is chemically defined as *bismuth oxyiodomethylgallate*, and occurs as a light, dark-gray, odorless powder, containing about 23 per cent. of iodine and 38 per cent. of bismuth, and insoluble in the usual solvents. It is intended as a drying wound antiseptic like airol.

Iodogelatin or *iodized gelatin* Bruschelli prepares with 3 parts of gelatin, 2 potassium iodide, 1⅕ iodine, 100 water, 2 sodium hypophosphite, and 2 calcium hypophosphite. It is a clear, colorless liquid, recommended as a well-borne iodine compound for internal use. Dose, 15 to 60 minims several times daily.

Iodogenol is described as a compound of peptonized albumin and iodine, intended as a substitute for the alkali iodides internally where these are not tolerated. Dose, 10 to 30 minims several times a day, in water.

Iodoglobulin.—See *thyroglandin*.

Iodo-guaiacol Tablets consist of guaiacol carbonate, strontium iodide, arsenic iodide, iron and manganese peptonate, pepsin and nux vomica, and are used in phthisis. Supplied in "full" and "half" strengths. (See also *iodocol*.)

Iodohemol or *iodized hemol* occurs as a brown, insoluble powder, containing 16 per cent. of iodine. It is used as an alterative in place of potassium iodide. Dose, 3 to 10 grains three times daily, in pills

Iodole (*tetraiodo-pyrrole*), C_4I_4NH, is one of the oldest of the modern succedanea for iodoform. It occurs as a light, fine, grayish-brown, odorless, tasteless powder, containing 89 per cent. of iodine, easily soluble in alcohol, in 3 parts of ether, 15 of oil, and 50 of chloroform, only slightly soluble in water. Used chiefly externally, like iodoform, but

to some extent also internally as an alterative. Dose, 1 to 3 grains thrice daily. Maximum daily dose, 15 grains.

Iodolecithin is an iodized lecithin prepared by a rather elaborate process. It forms a brownish-yellow, wax-like mass resembling ordinary lecithin; readily soluble in ether and warm alcohol, swelling in water, and decomposed by alkalies into choline, glycerino-phosphoric acid and iodized fat acids. It is used chiefly in scrofula and syphilis. The regular article contains about 8 per cent. of iodine, but stronger grades are also made.

Iodolen (*iodole-albumin*) is a yellowish, coarse, odorless, tasteless powder, insoluble in the usual solvents. *Iodolen externum* contains 36 per cent. of iodole, and is used as a dusting powder on wounds. *Iodolen internum* contains 10 per cent. of iodole, and is used instead of alkali iodides. Dose, 10 to 30 grains thrice daily. Keep well-stoppered.

Iodolin, $C_9H_7NCH_3Cl.ICl$, results from the interaction of quinoline iodomethylate and iodine chloride in solution with hydrochloric acid. It forms a yellow powder, soluble in alcohol, insoluble in water, and is used in place of iodoform on wounds.

Iodomuth is defined as *bismuth oxyiodo-methylenedigallate* of the formula $Bi_2I_2C_{15}H_{12}O_{12}$, and occurs as a reddish-brown, fine, odorless, tasteless powder, containing about 25 per cent. of iodine. It is prescribed as a drying wound antiseptic, externally, similar to iodoform, and as an astringent internally (phthisical diarrhea chiefly). Dose, 5 to 30 grains. See caution under *formaldehyde*.

Iodonaftan is an iodized naphtha product, an ointment similar to naftalan, and containing 3 per cent. of iodine. It is employed in skin diseases.

Iodo-nucleoid is a compound of iodine with nuclein; a reddish-brown powder, of faint iodine odor and taste, insoluble in the usual solvents and acids but soluble in alkaline liquids; iodine

content 9½ per cent. It is used in place of the alkali iodides. Dose, 10 to 60 grains three times daily. Marketed also as 5-grain tablets.

Iodopetrox is a product analogous to iodine-vasogen, containing 6 per cent. of iodine in petrox ("oxidized petroleum"), and used chiefly by inunction (½ to 2 drams daily) to produce iodine effects on the system.

Iodophen was formerly a synonym of nosophen but has latterly been applied to a compound of bismuth and aluminium with diiodophenol, which forms an orange powder of faint phenolic odor, insoluble in alcohol, ether, and water, but soluble in fats and diluted acids. It is used as a drying wound antiseptic and astringent.

Iodophenin or *iodophenacetin*, $C_{10}H_{12}I_2N_2O_2$, results from precipitating a solution of phenacetin in hydrochloric acid by means of potassium iodide. It occurs as a brown powder, soluble in alcohol and insoluble in water, and employed as a wound antiseptic and antirheumatic. Dose, 8 to 15 grains.

Iodo-pheno-chloral is a mixture of equal parts of iodine tincture, carbolic acid, and chloral hydrate, which is used as a paint in parasitic diseases.

Iodopyrin (*iodoantipyrin; antipyrin iodide*), $C_{11}H_{11}IN_2O$, occurs as colorless crystals, soluble in alcohol, slightly soluble in water. It is used as an analgesic and alterative in tuberculosis, asthma, migraine, etc. Dose, 5 to 15 grains three or four times daily. It has been withdrawn from this market.

Iodor is described as a liquid, containing iodine organically combined and claimed to be free from the bad effects of alkali iodides. Dose, 15 to 45 minims; children, 5 to 20 minims.

Iodose is a compound of nucleoproteid and iodine (10 per cent.), occurring as a reddish powder insoluble in the usual solvents and acid liquids, but soluble in alkaline fluids. It is intended as a substitute for the alkali iodides where these are not borne. Dose, 10 to 30 grains, before meals.

Iodosin is an iodine-albumin compound containing 15 per cent. of iodine, and marketed also as *solution* (0.25 per cent. I) the dose of which is 1 to 2 tablespoonfuls three times daily. It is used instead of the alkali iodides.

Iodosolvin is a preparation similar to iodine-vasogen, "containing 15 per cent. of iodine in oily emulsion-like form." It is used chiefly externally, but also internally. Dose, 5 to 10 drops; by inunction, 1 dram.

Iodosyl is an iodine compound of the formula $C_6H_3I.(OI)COOH$, and occurring as a red, nearly odorless powder, insoluble in water and slightly soluble in alcohol, chloroform or ether. It is prescribed as a wound antiseptic, in place of iodoform. Marketed also as gauze, ovoids, ointment, pencils, and conoids.

Iodoterpin is a compound of equal weights of iodine and terpin hydrate; a thick, black liquid, of faint terebinthinous odor and aromatic taste, and soluble in ether, chloroform, and alcohol, and miscible with water to yield a brownish-red liquid. It is readily absorbed by the skin, and is employed as a substitute for iodoform and iodine tincture externally (as ointment, or dusting-powder with kaolin).

Iodotheobromine (Prof. Rummo) consists of 40 per cent. of theobromine, 21.6 of sodium iodide, and 38.4 of sodium salicylate. It occurs as a white powder, soluble in hot water, and used chiefly in aortic insufficiency. Dose, 5 to 10 grains two to six times daily.

Iodothymoform or *iodothymoloform* is a yellow, almost odorless powder, intended as a wound antiseptic. One of its elements—thymoloform—is a formaldehyde combination. See caution under *formaldehyde*.

Iodothyrine (*thyroiodine*) is a lactose trituration of the supposed active principle of the thyroid gland, 1 part representing 1 part of fresh thyroid; a whitish, sweet, stable powder, prescribed in struma, myxedema, certain chronic skin diseases and other affections in which the thyroid

gland is indicated. Dose, 15 to 30 grains daily in three doses. Marketed also as 5-grain tablets.

Iodothyroidin is a preparation analogous to thyroidin.

Iodozen is defined as a chemical combination of methyl salicylate and iodine; an amorphous powder of pleasant odor, used as an antiseptic like iodoform. Marketed also as 10 per cent. ointment.

Iodozole is identical with the better known *sozoiodole*, which see.

Iodylin is a light-yellow powder of faint iodine odor, chemically definable as *bismuth iodosalicylate* and used as a drying antiseptic in surgery.

Iodyloform is a compound of iodine with gelatin, occurring as an odorless, yellowish-brown powder containing 10 per cent. of combined iodine, and insoluble in water, alcohol or ether. It is prescribed principally as a wound-antiseptic similar to iodoform, but also internally as a substitute for potassium iodide in doses of 5 to 30 grains.

Iothion (*diiodohydroxypropane*) is a yellowish, oily liquid of the specific gravity of 2.4 to 2.5, soluble in about 80 parts of water, 20 of glycerin, and 1½ of olive oil, and miscible in all proportions with alcohol, ether, chloroform, vaselin and lanolin. It contains 79 to 80 per cent. of iodine. It is employed by inunction to secure the constitutional effects of iodine, pure, or diluted with oil, vaselin, or lanolin. Dose, per inunction, 15 to 60 minims. The same name has been applied to an iodized and sulphurated sesame oil.

Iron-albumose.—See *ferro-somatose*.

Iron-Ammonium Arseno-citrate is a double-salt of ferrous arsenite and ammonium citrate, containing 1.4 per cent. of arsenous acid and about 15 per cent. of iron. It forms green scales freely soluble in water, and is used chiefly in pernicious anemia and malaria of children.

Iron Cacodylate (ferric) or *iron dimethylarsenate*, $[(CH_3)_2AsO_2]_6Fe$, occurs as a grayish-green

powder, moderately soluble in water, less freely so in alcohol, and containing 32 per cent. of arsenous acid and 45 per cent. of ferric oxide. It is used subcutaneously or internally in chlorosis, lymphadenitis, etc., where both arsenic and iron are indicated.

Iron Caseinate or Nucleo-Albuminate results from the action of calcium caseinate upon a freshly made solution of ferrous lactate and forms an odorless, tasteless powder, containing 2½ per cent. of ferric oxide, insoluble in water, but soluble in weak solution of caustic soda or ammonia. It was recommended by Dawydow as a readily absorbed iron compound. Dose, 3 to 10 grains.

Iron Dimethylarsenate.—See *iron cacodylate.*

Iron Glycerino-arsenate, also known as *marsitriol,* is prescribed by French physicians as an assimilable arsenical in doses of ⅙ grain three times daily.

Iron Glycerinophosphate, $FePO_4C_3H_5(OH)_2 + 2H_2O$, occurs as greenish-yellow, odorless scales or powder, soluble in water or diluted alcohol and employed in chlorosis, neurasthenia, etc., in doses of 3 to 10 grains thrice daily as pills or in solution. Its solutions do not keep long, and consequently they should be prepared in small quantities at a time and always with freshly sterilized water.

Iron Hydrocyanate is a preparation lauded in recent years in the treatment of epilepsy and other neuroses, and given in doses of ½ to 2 grains two or three times daily, in pills or tablets. No chemical description is published by the manufacturers; physically the article resembles regular iron ferrocyanide (prussian blue, insoluble) and is perhaps identical with the latter.

Iron Nucleinate is marketed under several trade names, the best known of which is *ferrinol;* see this.

Iron Paranucleinate.—See *triferrin.*

Iron Phosphosarcolactate is described under *carniferrin.*

Iron-Protylin.—See under *protylin.*

Iron Somatose.—See *ferro-somatose.*

Iron Succinate (*ferric succinate*) occurs as a reddish-brown powder, nearly insoluble in water but soluble in acids. It is used chiefly in gall-stone disease. Dose, 10 to 60 grains after meals, 10 drops of chloroform being given at the same time four to six times daily.

Iron Sulphoichthyolate.—See *ferrichtol.*

Iron-Tropon consists of 91½ per cent. of peptonized tropon (a compound of iron and albumin [⅓ meat and ⅔ vegetable]), 6 per cent. of cocoa, and 2½ per cent. of iron, and forms a soluble, palatable powder, which is given as a ferruginous food in doses of a teaspoonful three times daily, in milk, water, etc.

Iron-Vitellin.—See *oviferrin.*

Isarol, formerly known as *ichthodin*, is defined as *ammonium sulphoichthyolate* Pharm. Helv., and would hence appear to be identical with ichthyol.

Iso-amyl-trimethylammonium Chloride is *amylarin.*

Iso-butyl-orthocresol Iodide. — See *europhen.*

Isoform is the name applied to *para-iodo-anisol*, $C_6H_4.OCH_3.IO_2$, obtained by oxidizing iodo-anisol. The drug forms silvery scales, slightly soluble in water, and insoluble in alcohol or ether. It is intended as a wound antiseptic like iodoform, and is marketed only as dusting-powder (with an equal weight of calcium phosphate), paste (1:1 glycerin), gauze (1 to 10 per cent.), and capsules (for internal use).

Iso-naphtol is *beta-naphtol.*

Iso-physostigmine is an alkaloid obtained from the ether-insoluble portion of the alcoholic extract of calabar bean used in the preparation of physostigmine (eserine). It has the same chemical formula as the latter base, but it is insoluble in ether; and, according to Prof. Ogiu, similar also physiologically, but more intense, rapid, and lasting in action than eserine, both in local as well as internal use—0.75 gram of iso-physostigmine correspond to 1 gram of physostigmine.

Dose of the sulphate or salicylate, 1/150 to 1/60 grain; applied as a myotic in 0.1 per cent. solution, which should be dispensed in amber bottles. Antidote, atropine.

Isopral is chemically *trichlor-isopropyl alcohol*, $CCl_3.CH.(OH).CH_3$, a crystalline, volatile, substance of camphoraceous odor and burning taste, and soluble in alcohol, ether or water (about 30 parts). It is prescribed as a hypnotic, in doses of 10 to 30 grains, given in solution. It should not be dispensed in paper, on account of its volatility, and it should be kept in a cool place.

Iso-pyramidon Citrate.—See *citrovanille*.

Isson is described as a palatable, permanent liquid preparation of iron, containing 0.2 per cent. of ferrous saccharate. Dose, ½ to 1 teaspoonful; children take 10 to 30 drops.

Isutan is described under *bismutan*.

Itrol was the name formerly applied to a certain brand of *silver citrate* then also designated as "antiseptic Credé," but it has latterly been abandoned in favor of the chemical appellation, under which it will be described in these pages.

Ixodin is an extract of wood cells prepared with physiological solution of sodium chloride. It is said that it prevents the coagulation of the blood.

Izal is a natural mixture of resin soaps and tar oils rich in cresols, obtained as a by-product in the distillation of coal. It is claimed to be a strong, relatively non-poisonous disinfectant. Dose (in intestinal diseases) 5 to 10 drops, in capsules.

J

Jamrosin is a fluid extract of an East-Indian myrtacea, used in France in diabetes. Dose, 6 to 10 drops three times daily.

Jatrevin is stated to be a condensation product of menthol and isobutyl-phenol; a clear, colorless liquid, of peppermint-like odor, and readily soluble in alcohol but only slightly soluble in

water or ether. It is used by spray-inhalation (2½ to 5 per cent. solutions) in phthisis and respiratory catarrhs.

Jecorin Tablets each contain 45 grains of cod liver oil with powdered extract of malt, cocoa, sugar and glycerin, and serve as a palatable form of giving cod liver oil. Abroad the name jecorin is applied also to a substitute for cod liver oil, 20 grams of which are stated to contain 0.1 each of calcium hydrochlorophosphate and calcium lactophosphate, 0.05 each of bromine and iodine, 0.075 of iron iodide, and "extract artemisia compound."

Jecorol is a brand name for the extractives of cod liver oil (known also by the names morrhuol, gaduol, etc.) It is applied in Switzerland to an emulsion of cod liver oil containing chocolate and flavoring principles, and marketed also in various combinations—with guaiacol (2 per cent.), with iodine (10 per cent. iodipin), and with lecithin (0.6 per cent.).

Jequiritol is a sterilized, standardized preparation of jequirity seed introduced by Prof. Roemer for use in certain chronic eye diseases in which jequirity infusion was formerly employed. It contains 50 per cent. of glycerin, and is marketed in four strengths: Nos. 1, 2, 3, 4.

Jequiritol Serum is an antitoxin prepared in accordance with Behring's principles, and said to be capable of promptly arresting the action of jequiritol, for which purpose it is solely used.

Jodalbacid, Jodipin, and other "jod" derivatives, see under *I.*

Jodkresol.—See *traumatol.*

Johimbine.—See *yohimbine.*

K

Kalagua Extract is said to be prepared from a South American plant. It has a garlicky odor and taste, and has been introduced as a remedy in phthisis. It is marketed only as pills; dose, 1 to 4 three times daily.

Kalarine is a coal tar antipyretic and analgesic, claimed to be "free from depressing effect"—probably a mixture consisting essentially of acetanilid with some caffeine (intended to counteract the depressing effect of the former). Dose, 5 to 10 grains.

Kalendol is an odorless astringent and antiseptic dusting-powder containing calendula, ichthyol and boric acid in combination with "imicitin, a synthetic coal tar product with an iodine base." It is soluble in water or glycerin, and in a mixture of alcohol and water, but insoluble in oils, pure alcohol or ether.

Kamokosin is a tapeworm remedy consisting essentially of kamala and koussein (kosin).

Kastanol, also known as *Pflügge's extract of horse chestnut*, is described as containing the active principle of horse chestnut with 8 per cent. of camphor. It is used by inunction or as a paint in rheumatism, neuralgia, and other painful affections.

Katharin is a name applied to *carbon tetrachloride*, which is used, as is known, as a local anesthetic.

Katharol is said to be an aromatized solution of hydrogen peroxide intended as a mouth-wash and disinfectant.

Kavakavin Tablets, employed in diseases of the urinary tract, contain extract of kava-kava and hexamethylenetetramine. See caution under *formaldehyde*, the last named article being a condensation product of formaldehyde.

Kawa Sandal.—See *gonosan*.

Keimol is a recently introduced liquid disinfectant of the listerine type, the active constituents of which are salol, thymol, oil of wintergreen and menthol. It is used externally from full strength down to a 1:4 dilution. Dose, 1 fluid dram diluted.

Kelene is a brand of *ethyl chloride*, marketed in automatic tubes, plain and in various combinations (cocaine, formaldehyde, etc.) designated as "autosprays." See caution as to formaldehyde combinations under *formaldehyde*.

Kelene-methyl is a mixture of compressed ethyl chloride and methyl chloride, used as a local anesthetic.

Kephalopin is a cold-prepared oily extract of fresh brain substance that is used per os or hypodermically in hysteria, neurasthenia and other nervous diseases. Dose, 2 to 5 c.c.

Keramin Soap (Unna) is a soda-potash soap containing balsam of peru and flavored with oils of clove and cinnamon. It is employed chiefly in eczema and other skin diseases.

Kermelol is the name applied to keratinized, silver-coated capsules, 25 of which contain 7.5 grams of extract of male fern and 0.15 gram of santonin, and which are prescribed as an anthelminitic.

Kil is a grayish-white mineral mass consisting chiefly of silicic acid, alumina, ferric oxide, chalk and magnesium carbonate, and used for aseptic dressings in skin diseases and as a plaster and soap base.

Kineurin is a trade name for *quinine glycerinophosphate*.

Kolanin is a glucoside discovered by Knebel and considered by him as the active principle of kola. It is marketed as 3-grain tablets; dose, 1 to 3.

Korpulin, Krealbin, and some other remedies whose names are often spelled with a "K," see under *C*.

Koryl is defined as a combination of "orthophenolsulphone-borosalicylic acid with iodomen-

thol (1 per cent.);" a white powder, used as an antiseptic. (Must not be confounded with *coryl*, a solution of methyl-chloride in ethyl chloride.)

Kresamine (*kresolamine; trikresolamine*) is a clear, alkaline, watery solution containing 25 per cent. each of ethylenediamine and trikresol, of carbolic odor, and soluble in all proportions in glycerin, up to 33 per cent. in water, but insoluble in petrolatum. It is used in tuberculosis by inhalation (25 to 36 per cent. solutions, in skin diseases (4 to 20 per cent. ointments), wounds (½ to 1½ per cent. lotions), etc. Exposure darkens the article.

Kresapol or *kresosaponate* is a disinfectant corresponding to liquor cresoli saponatus Ph. G.

Kreso is a coal-tar product consisting largely of cresols and the higher phenols, and hence analogous to creolin. It is used in the same strengths as carbolic acid as a disinfectant, deodorant and parasiticide. It is marketed also as a "dip" for parasitic diseases of animals.

Kresochin consists of neutral quinoline tricresylsulphonate and a loose compound of quinoline with trikresol; it contains 33 per cent. of quinoline and 17 per cent. of trikresol, and occurs as a fluid soluble in 20 parts of water, and used as a surgical disinfectant in 2 to 5 per cent. solutions.

Kresolamine.—See *kresamine.*

Kresosolvin was formerly known as *creolin Ahrens*, in contradistinction to creolin Pearson, the article generally known on this market simply as creolin. See *creolin.*

Kresotina is defined as a "derivative of repeatedly purified creosote, which is then combined with benzoic acid in presence of CO_2." It has a pleasant, aromatic odor, and is intended as a substitute for creosote.

Kresulfol is a cresolsulphonic acid obtained by mixing 2 volumes of crude cresol with 1 volume of crude sulphuric acid. It is employed as a disinfectant, in 3 per cent. aqueous solution.

Kristallin.—See *crystalline.*

Kryofine, *methoxy-acet-para-phenetidin*, CH_3-$OCH_2CONH.C_6H_4.OC_2H_5$, is a condensation product of para-phenetidin and methylglycholic acid; fine, colorless, odorless, tasteless crystals, freely soluble in alcohol, ether or fixed oils, and sparingly so in cold water (600). It is prescribed as an anodyne and antipyretic. Dose, 4 to 7½ grains. Marketed also as tablets of these sizes.

Kryogenin.—See *cryogenine*.

L

Labordine will be referred to under *quinalgen*.

Lactagol is a dry extract of cottonseed; a fine, yellowish-white powder, insoluble in water but forming a sort of emulsion therewith. It was introduced by Dr. B. Beckman of Hamburg as a galactagogue. Dose, a heaping teaspoonful three or four times daily, in milk.

Lactanin is a *bismuth dilacto-monotannate*, occurring as a yellowish, odorless, tasteless, insoluble powder, and prescribed as an intestinal astringent. Dose, 5 to 15 grains several times daily.

Lactocresol is a coal tar disinfectant analogous to creolin—a dark, thick liquid, forming a milky emulsion with water. For surgical purposes it is used in ½ to 2 per cent. solutions.

Lactogen is the name applied to pills containing extracts of saw palmetto, goat's rue, coca, kola, and peptonized iron, and used in anemia and neurasthenia. Dose, 2 pills before meals and at bedtime.

Lactophenin (*lactyl-para-phenetidin*), $C_6H_4.O_2$-$C_2H_5.NH.CO.CH(OH)CH_3$, differs chemically from phenacetin only in having a lactic acid in place of the acetic acid constituent. It occurs as colorless, odorless, slightly bitter crystals, soluble in alcohol, and in 300 parts of water, and decomposed by acids or alkalies. It is an antipyretic and analgesic. Dose, 8 to 15 grains. Marketed also in 0.5 and 0.25 gram tablets.

Lactoserum.—See under *serum*.

Lacto-Somatose is a compound of tannin with milk albumose, occurring as a tasteless, odorless powder, soluble in water, and containing 5 per cent. of tannic acid. It is used as a food, especially in children with intestinal diseases. Dose (child) 1 to 2 teaspoonfuls per day.

Lactylphenetidin is *lactophenin*.

La-Kama is a tapeworm remedy marketed as *weak*, each capsule of which contains 1.25 grams of kamala and 0.1 gram of dried extract of pomegranate root bark; and as *strong*, each capsule containing 1.5 grams of kamala and 0.1 gram of dried extract of pomegranate.

Lanagen and **Lanain** are brands of *adeps lanæ hydrosus*.

Lanesin is said to consist essentially of adeps lanæ and aluminium acetate, and is used on insect bites.

Lanthyol is a burn and inflammation ointment composed of lanolin, carbolic acid, ichthyol, alum, oil of thyme "a stimulating base" (probably the manufacturers' aristoform).

Lanum is a brand of *hydrous wool fat*.

Largin (*protalbin-silver*) occurs as a gray powder containing 11 per cent. of silver and soluble in 10 parts of water, also soluble in glycerin but insoluble in alcohol. It is prescribed as an astringent and bactericide in ¼ to 5 per cent. solutions. Internally it is occasionally prescribed in gastric or intestinal ulceration. Dose, 5 to 8 grains in pills. Its solution should be dispensed in dark-amber bottles.

Laricin is a synonym of *agaricin;* see under this title.

Laurenol is a French disinfectant, marketed as No. 1 (medicinal, and consisting of a solution of copper sulphate, zinc chloride, alum, hydrochloric acid, picric acid, glycerin and water) and as No. 2 (solution of zinc chloride, alum and copper sulphate, intended as a general disinfectant).

Lavalum is an antiseptic, astringent wash consisting of zinc sulphocarbolate 10 per cent., alum 15 per cent., ichthyol 1 per cent., and

thymol, eucalyptol and oil of wintergreen. It is used diluted with 5 to 10 parts of water.

Lavoderma is a freely soluble soap containing about 30 per cent. of mercury caseinate and employed in the treatment of parasitic skin diseases.

Laxan is a laxative tablet containing 0.1 gram of phenolphtalein and 0.3 gram of vanillated cacao mass.

Laxatol is the name applied to several laxative preparations, both here and abroad. One consists essentially of phenolphthalein and is supplied in three strengths; another of a mixture of vegetable laxatives, etc.

Lecin is described as a stable elixir of neutral iron albuminate, containing ½ per cent. of iron, 20 per cent. of alcohol, 10 per cent. of sugar, and aromatics. It is prescribed as a hematopoietic. Dose, a teaspoonful to a dessertspoonful, after meals, in water.

Lecithan is the name given by a Swiss firm to its *lecithin.*

Lecithcerebrin is a lecithin compound obtained from brain substance, and employed as a nerve sedative and hypnotic.

Lecithin (*lecithol*) is a phosphorus constituent of animal and vegetable tissues, more especially of nerve substance and yolk of egg. Chemically it is *choline distearophosphoglyceride*, $C_{42}H_{84}NPO_9$. That on the market is made from egg yolk and is hence known also as *ovilecithin;* a yellow, waxy, hygroscopic mass, soluble in acohol, chloroform, ether and fatty oils, and swelling up but not dissolving in water. It is used as a nerve tonic. Dose, 1 to 2 grains three times daily, in pills; subcutaneously, 15 to 45 minims of 5 per cent. solution in olive oil. Marketed also as 0.05 and 0.1 gram pills.

Lecithinogen is a secret mixture recommended for various affections, said to consist of 90 per cent. of "liquor ethyl. hypophosphor." and 10 per cent. of cane sugar.

Lecithmedullin is a lecithin preparation made from bone marrow, and prescribed chiefly in cardiac neuroses, pulmonary edema, etc.

Lecithol.—See *lecithin.*

Lecitogen (*Jaffé's lecithin-cacao*) contains in each tin 3 grams of lecithin mixed with pure cacao. It is used as an invigorating food especially in nervous and diabetic people.

Lemon Tea ("zitronenthee" in German) is a golden-brown tea of pleasant aromatic-acidulous taste, prepared by drying lemons deprived of seeds by a special process that does not entail any loss of the juice or impairment of the aroma of the fruit. It is used for the so-called "lemon-juice cures," and makes a palatable drink.

Lenicet is a sparingly soluble anhydrous aluminium acetate, containing 30 per cent. of aluminium oxide.

Lenigallol (*pyrogallol triacetate*) occurs as a white powder, insoluble in water, and was introduced as a mild substitute for pyrogallic acid (pyrogallol) in skin diseases, chiefly chronic eczema, to be applied in ½ to 10 per cent. ointments or pastes. It does not stain.

Lenirobin or *chrysarobin tetra-acetate* was launched as a succedaneum for chrysarobin, to be used like the latter but less poisonous and non-staining. It is soluble in chloroform, insoluble in water.

Lentin is a trade name latterly applied to *meta-phenylenediamine*, recently recommended as an antidiarrheal in children.

Lepine is a French antiseptic solution containing mercuric chloride, carbolic, salicylic and benzoic acids, calcium chloride, bromine, chloroform and quinine hydrobromate.

Leprolin is a lepra antitoxin prepared by E. R. Rost, and used subcutaneously in the same manner as tuberculin.

Letalbin or *lecithin albuminate* occurs as a yellow, stable powder containing 20 per cent. of lecithin. It is recommended as a "nerve nutrient" and reconstructive. Dose, 5 to 10 grains three times daily.

Leucrol is advertised as "prepared from a tropical plant unknown in the markets and to botan-

ists," in the form of fluid extract and pastilles. It is intended for internal use in leucorrhea.

Leuco-alizarin.—See *anthrarobin.*

Levulo-Chloral is described as being a compound of levulose and chloral that is soluble in water and in alcohol, and has hypnotic action. Dose, 2 to 10 grains; maximum dose, 15 grains.

Levulose (*fructose; fruit sugar; diabetin*) is a sweetening agent especially intended for diabetic subjects. In the pure state it forms a white powder, freely soluble in water, and of a purely sweet taste. Dose, 3 drams to 2 ounces per day.

Levurargyre is a *mercury nucleinate* introduced by Trillat, made with the nuclein of yeast, and is analogous to mercurol. It is without metallic taste and is not attacked by sulphuretted hydrogen. It is prescribed in syphilis. Dose, ⅛ to 2 grains.

Levuretin is a powdered, dried beer-yeast recommended by Dr. Goliner in diabetes, furunculosis, and chronic eczema, internally. Dose, a teaspoonful three times a day, before meals, in water.

Levurine is another dried yeast prepared specially for medicinal purposes, and used like the preceding article.

Levurinose is a beer yeast that has been dried in a current of cold air. It is used internally like levuretin, in diabetes, furunculosis, chronic eczema, etc. Dose, a teaspoonful three times a day.

Lianthral (*extractum olei lianthracis*) is a thick, benzol extract of coal tar, used in skin affections instead of the older liquor and tinctura lithanthracis, in the form of ointment, tincture, spray, soap, paste, etc.

Libanol is the ethereal *oil* of *cedrus atlantica*, of agreeable odor and taste, soluble in alcohol, and insoluble in water. Some consider it a valuable remedy in chronic catarrhs of the respiratory tract, as well as in gonorrhea and cystitis. It is said not to disturb the stomach or irritate the kidneys as oil of sandalwood does. Dose, 15 to 30 minims three times daily, in capsules, or with cod liver oil.

Lienaden is a dried extract of the spleen, which is administered in malaria and hypertrophied spleen in quantities of 2 to 6 drams per day.

Lignosulphite is a volatile aromatic fluid obtained as a by-product in the manufacture of cellulose, and containing besides sulphites the ethereal oils, resins and balsamic constituents of the wood. It is used by inhalation in tuberculosis and chronic bronchial catarrh.

Linadin is a dry extract of the spleen, occurring as a dark-brown, almost odorless powder of marked cod liver oil taste, containing about 1 per cent. of iron and 0.023 per cent. of iodine, and insoluble in water. It is prescribed in anemia, scrofula, enlarged spleen, etc. Dose, 1 to 3 tablets (only so marketed), washed down with water.

Linimentum Carragheni is described by Wille as an unctuous mass soluble in water, prepared from Irish moss and intended to serve as a substitute for vaselin and oil as a vehicle for antiseptics and other drugs.

Linogen is what Mindes calls his analogue of vasogen.

Lipiodol and **Lipobromol** are iodized and brominized oils, containing respectively 40 per cent. of iodine and 33⅓ per cent. of bromine organically combined. Lipiodol is specially intended for subcutaneous use where a pronounced iodine effect is desired. Lipobromol is a pale-yellow liquid soluble in ether or chloroform but insoluble in alcohol or water. It is intended as a substitute given per os and hypodermically, for potassium bromide. Dose, 15 to 60 grains.

Lipogenin is a new Russian ointment base, made in *solid* and *liquid* forms. The former occurs as a porcelain-like, odorless mass of crystalline structure, which instantly melts at body temperature. Liquid lipogenin is a colorless, odorless, oily, neutral liquid crystallizing in the cold.

Liquor adhæsivus.—See *filmogen*.

Liquor Ammonii Ergotinici is a clear, brown liquid, 1 c.c. of which contains 0.3 gram of ammonium ergotinate (equivalent to 3 grams of ergot). It is used for the same purposes as ergot, internally or subcutaneously. Dose, 10 to 30 minims.

Liquor Hæmino-albuminatus is an analogue of hemalbumin, consisting of an aromatized 3 per cent. solution of ferralbumin (Harras).

Liquor Thiophosphini is a syrup of potassium guaiacolsulphonate (known on this market as thiocol) containing also some calcium salts.

Liquor Thyreoideæ Conservatus is defined as a stable liquid preparation of the thyroid gland of animals which have been treated for some time with potassium iodide or some other iodine compound. Six cubic centimeters represent one thyroid gland. It is used in goiter, obesity, myxedema, etc. Dose, 3 drops three times daily, gradually increased.

Liquor Triferrini.—See *triferrol.*

Lithion Diuretin is theobromine-lithium and lithium salicylate, or, as it is commonly designated, *theobromine and lithium salicylate;* see this.

Lithium Agaricinate is a white powder readily soluble in water and administered in doses of 1½ to 3 grains at bedtime to arrest phthisical night-sweats.

Lithium Arrhenal is defined as *lithium chlorhydromethylarsenate*, and forms very deliquescent crystals soluble in water. Dose, 1 to 3 grains twice daily, with meals, in water or as pills.

Lithium Citro-quinate is a gout compound introduced by Dr. A. Voswinkel of Berlin, something like urosin (defined as lithium quinate). Dose, 5 to 15 grains.

Lithium-Ferrosol is ferrosol containing also a lithium salt.

Lithium Glycerinophosphate (*glycerophosphate* or *phosphoglycerite*) has the formula $Li_2PO_4C_3H_5(OH)_2$ and occurs as a white powder readily soluble in water. It is used chiefly in gout associated with nervous weakness. Dose, 5

to 15 grains three times daily, as powders, syrup, or solution. Its liquid preparations do not keep but a few days; they should be prepared with sterile water, and in small quantities at a time.

Lithium-Mercury Iodide (*lithiomercuric iodide, mercuricide*) is a double salt containing 34 per cent. of Hg. 65 of I. and one of Li, freely soluble in water, not precipitated by fixed alkalies, hence not decomposed by the blood, and claimed to be a stronger germicide than the older mercuric salts in general yet less toxic (because it contains less mercury).

Lithium Quinate (*chinate*) is described under its trade name, *urosin*.

Lithium Vanadate (*lithium meta-vanadate*), $LiVO_3$, occurs as a yellowish powder, soluble in water. It has been used in gout—1/15 grain per day every two or three days, in water.

Lithyol is an Austrian product claimed to be identical with ichthyol.

Lofotin is so-called "hydroxyl-free cod liver oil." Marketed also combined with 0.01 per cent. of phosphorus.

Lofotol is cod liver oil impregnated with carbon dioxide gas, whereby the natural taste of the oil is destroyed.

Loretin is chemically *meta-iodo-ortho-oxy-quinoline-sulphonic acid*, $C_9H_4N.I.OH.SO_3H$, and forms a yellow, nearly odorless powder, only slightly soluble in water or alcohol, almost insoluble in ether or fatty oils, and containing 36.2 per cent. of iodine. It is used as a wound antiseptic in place of iodoform—as powder, ointment, collodion, etc.; recently recommended also in tuberculosis and other infectious diseases, 3 to 8 grains three times a day. (See also *griserin*.)

Loretin-Bismuth.—See *bismuth loretinate*.

Loretin-Sodium.—See *griserin*.

Losophan is a *tri-iodo-meta-cresol*, $C_6HI_2.OH.CH_3$, which results from the action of potassium iodide upon sodium ortho-oxy-para-toluylate. It occurs as colorless needles, contains about 80 per cent. of iodine, is easily soluble in ether, chloroform or fatty oils, sparingly soluble in alcohol,

and insoluble in water. It has been used in 1 to 3 per cent. ointments or paints in fungous skin diseases, but is rarely prescribed nowadays.

Lozon is a brand of solution of *hydrogen peroxide*.

Lucilline is a brand of *petrolatum*.

Lutein is the name applied to "tablets containing 0.3 gram of the dried yellow substance of cows' ovaries." The article is used in certain female complaints. Dose, 1 to 3 tablets three times daily.

Lycetol is the terse name for *dimethyl-piperazin tartrate*, $(C_2H_4)_2(NCH_3)_2.C_4H_6O_6$. The drug occurs as a white powder of pleasant, acidulous taste, and readily soluble in water. It was introduced as a substitute for piperazin in gout and gravel. Dose, 4 to 8 grains four times a day in mineral water.

Lygosine is the name by which Fabinji introduced *di-ortho-cumar-ketone* or *di-ortho-oxydibenzyl-acetone*, a condensation product of salicylic aldehyde and acetone, but now given to the *sodium* salt of the latter. This crystallizes in glossy, greenish prisms that dissolve in about 16 parts of water at room temperature, to form a red solution; acids decompose it. It is prescribed as an antiseptic astringent (in gonorrhea chiefly) in 2 to 5 per cent. solutions.

Lykresol is a solution of crude cresol made by the aid of soap, and used as a disinfectant.

Lymphol is a cod-liver oil emulsion containing also "chinacinnol," an aromatic extract of cinnamon and cinchona.

Lysargine is another trade name for *colloidal silver*, which is better known here as *collargol;* see this.

Lysidin (*ethylene-ethenyl-diamine hydrochlorate*), $C_4H_8N_2.HCl$, is a red, crystalline, very hygroscopic mass, having a mousy odor. It is marketed only in 50 per cent. solution, a pinkish-yellow liquid which is claimed to be a uric acid solvent. Dose, 15 to 75 minims per day, in carbonated water. Incompatible with mercuric chloride and iodide, and ferric chloride.

Lysitol is analogous to *lysol*, but of Austrian (Bohemian) origin.

Lysoform is essentially a perfumed solution of a potash soap impregnated with formaldehyde; a clear, yellowish, foaming, oily liquid, soluble in all proportions in water or alcohol, but insoluble in chloroform, benzene, etc. It is used to disinfect and deodorize the hands, in 2 to 3 per cent. solutions. Marketed also as *carbol-lysoform* (33⅓ per cent. of carbolic acid) and *lysol-lysoform* (83⅓ per cent. of lysol). Lysoform is also called *veroform*. See caution under *formaldehyde*.

Lysol is obtained "by dissolving in fat and subsequently saponifying the fraction of tar oil that boils between 190 and 200° C." It contains 50 per cent. of cresols, and is a clear, brown, oily liquid, of carbolic-creosote-like odor, and soluble in water, alcohol, glycerin, or chloroform. It is employed as a surgical and gynecological antiseptic, in ½ to 3 per cent. solutions. Lysol pills contain lysol with Blaud's mass.

Lysolveol is a disinfectant said to contain besides water, 44.5 per cent. (by vol.) of cresols and 33 of linseed oil potash soap; a brown liquid, soluble in water, and used like lysol.

Lysopast is a brown, transparent, soft mass, consisting of 90 per cent. of lysol and 10 per cent. of a neutral soap.

Lysulfol is defined as a compound of lysol containing 10 per cent. of sulphur; a thick, black liquid, completely soluble in water. It is employed in skin diseases.

Lythol is a liquid antiseptic the active ingredients of which are eucalyptol, thymol, oil of wintergreen, and borates. It is used from full strength down to a 1:6 dilution.

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Maclin Pastilles, for reducing flesh and purifying the blood, consist essentially of iron lactate, quinine hydrochorate, potassium citrate, sodium sulphate, and guaiac wood.

Magnesium Cacodylate, an arsenical compound, said to be comparatively non-toxic, occurs as a white powder soluble in water. It is used chiefly subcutaneously—8 to 15 minutes of a 5 per cent. solution daily.

Magnesium Perhydrol is what a Darmstadt (Germany) firm calls a mixture of 15 to 25 parts of magnesium peroxide and 75 to 85 parts of magnesium oxide. The article occurs as a white powder insoluble in the ordinary solvents. It is used as a disinfectant and oxidizer in abnormal gastric or intestinal fermentation, and is also laxative. Dose, ½ to 1 teaspoonful in water three times daily.

Malakin is *salicyl-para-phenetidin*, $C_6H_4.OC_2H_5N.CH.C_6H_4.OH+H_2O$, a condensation product of salicylic aldehyde and para-phenetidin. It forms fine, yellow needles, insoluble in water, slightly soluble in alcohol, and quite freely soluble in solutions of alkali carbonates. It is an antipyretic and antineuralgic; also a tænifuge. Dose, 8 to 15 grains several times daily.

Malarin (*acetophenone-phenetidid*), $C_6H_5C(CH_3):N.C_6H_4OC_2H_5$, is a condensation product of acetophenone and para-amidophenetol; light-yellow crystals, insoluble in water, slightly soluble in alcohol. It acts as an antipyretic and antineuralgic. Dose, 6 to 10 grains two or three times daily.

Mallein is a glanders serum used as a diagnostic of glanders in horses. It is marketed in liquid as well as dry (Dr. Foth) form. Dose, of liquid, 1 c.c. per injection; of dry, ½ to ¾ grain.

Malonal is another name for *veronal*, which see.

Maltin is an old-time synonym of *malt diastase.*

Maltogen is a non-hygroscopic, scaly extract of malt.

Mandragorine is an alkaloidal substance isolated from mandragora officinarum, and at first believed to be a disinct alkaloid but later declared by Thoms and Wentzel to be an *impure hyoscyamine*, consisting predominantly of the latter alkaloid and a base belonging to the piperidine series, the properties of which have as yet not been determined.

Manganese Albuminate D. Vitali prepares by stirring the whites of three eggs with water, setting aside, straining through linen, carefully stirring in 1 fluid ounce of 5 per cent. solution of potassium permanganate, and evaporating the solution on glass plates at 30° C. It occurs as brown, nearly tasteless scales, slowly soluble in cold water, and said to keep well in solution and to be very assimilable.

Manganese Glycerinophosphate, $MnPO_4C_3H_5(OH)_2+H_2O$, is a yellowish-white powder, soluble in water and employed in the same dose and for the same purposes as iron glycerinophosphate.

Mannin is the name selected for a substance claimed to be identical with orthoform.

Marach, also known as *Denver mud*, is a sterilized, antiseptic poultice material, analogous to antiphlogistine.

Maretin is a carbaminic acid meta-tolylhydrazid, a methylated acetanilid in which the acetyl group has been replaced by the group $NH.NH.CONH_2$. It forms white, shining, nearly tasteless crystals, soluble in 1050 parts of water or 95 parts of alcohol, almost insoluble in ether or chloroform. It is prescribed as an antipyretic, chiefly in phthisis. Dose, 3 to 8 grains once or twice a day.

Marina is a filtered, carbonated sea water, employed first by Dr. G. Fodor in chronic gastro-intestinal catarrh, dyspepsia, diabetes, etc., also as a mild purgative, in doses of ¼ to ½ tumblerful.

Markasol is defined as *bismuth borophenate* of the formula $Bi_2O_3B(C_6H_4)(CO_2)_2H_2O$. It occurs as a white powder smelling strongly of camphor and having a burning taste. It is intended chiefly as a surgical antiseptic instead of iodoform.

Marmorekin is a new name for the well-known *Marmorek's antistreptococcus serum*, which is used subcutaneously in erysipelas, puerperal fever, tuberculosis, etc., in doses of 5 to 20 c.c.

Marrol is an English dietetic consisting chiefly of malt extract, bone marrow and calcium phosphate.

Marsitriol is a trade name for *iron glycerinoarsenate*, which see.

Marsyle is a French trade name for *iron cacodylate;* see the latter.

Meconarceine is what Laborde calls a substance obtained from opium, free from morphine and soluble in water. It is used as an anodyne. Dose, 1/10 to ⅓ grain. Marketed in solution put up in hermetically sealed tubes and containing camphor as a preservative.

Mediglycin is a fluid glycerin soap serving as a vehicle for camphor, thigenol, naphtol and other dermic remedies.

Medulladen is a pulverulent extract of bone marrow, used in anemia, chlorosis, etc. Dose, 30 to 45 grains thrice daily, as tablets, or in jam or gruel.

Medullin is said to consist of 500 parts of cod liver oil, 250 of honey, 62 of Peru cognac, 70 of extract of black currant leaves, 50 of extract of juniper berries, and 18 of lemon juice. It is designed for use in asthma, consumption, etc.

Mekambo, Meniocar, Mezi and **Mezico.**—See under *nebulates.*

Melan is a preparation of melilotus cœruleus; a blackish-brown, oily fluid, of pungent, aromatic odor. It is used pure or as ointment on ulcers, burns, etc.

Melioform is a liquid disinfectant consisting of 25 per cent. of formaldehyde solution, 15 per cent. of aluminium acetate, and a number of indifferent

substances. For use, it is diluted with 250 volumes of water, that is, a teaspoonful is added to a quart of water. See caution under *formaldehyde.*

Menthalcal is a pastille used in throat troubles, consisting essentially of menthol and the constituents of Ems water.

Menthoform is analogous to *forman*, which see.

Menthol-Iodole is a mixture of 1 part of menthol and 99 parts of iodole, used principally in throat affections and ozena, by insufflation.

Menthol Valerianate.—See *validol.*

Menthophenol is a compound resulting from heating 1 part of carbolic acid with 3 parts of menthol, and occurring as a clear liquid of aromatic odor and taste, almost insoluble in water or glycerin, freely soluble in alcohol, chloroform or ether, and readily taking up iodine, iodoform or aristol. It is used as an antiseptic and analgesic locally either pure, or in 3 to 5 per cent. mixture with warm water.

Menthorol is para-chlorphenol with menthol (added as a corrigent of taste and odor), which is used in 5 to 15 per cent. solution in glycerin as a paint in laryngeal tuberculosis.

Menthoxol is a 3 per cent. hydrogen peroxide solution containing 1 per cent. of menthol, used in 5 to 10 per cent. solution as a gargle in inflammatory throat troubles. In cold weather the menthol is liable to crystallize out; warming the solution dissolves it again.

Mercolint (*mercurlint*) is a cotton fabric impregnated with 90 per cent. mercurial ointment, worn over the chest in syphilis. Apron No. I contains 10, No. II 25, and No. III 50 grams of mercury.

Mercuralgam, formerly known as *mercuriol* (not mercurol), is an amalgam of mercury with aluminium and magnesium, admixed with chalk; a gray powder containing 40 per cent. of mercury, and intended as a substitute for mercury with chalk internally and (chiefly) for mercurial

ointment externally in syphilis (5 grams carried in pouches worn over the chest daily).

Mercuramine, or *mercury ethylenediamine citrate*, is a solution of 10 parts of mercury citrate, 4 of ethylenediamine, and 86 of water, which is used in 0.3 per cent. dilution instead of a 1:1000 solution of corrosive sublimate for disinfecting the hands in surgery, etc. It must be kept in a dark place.

Mercuran is a 50 per cent. mercury ointment made with a specially prepared goose oil and containing 1 per cent. of carbolic acid as a preservative. It is intended for the inunction treatment of syphilis, and, according to Dr. E. H. Shields, is rapidly absorbed through the skin, requires less time than ordinary mercury ointment for its application, and is less irritating than similar preparations of mercury on the market. It is supplied in soft gelatin capsules containing 4 grams, which quantity constitutes the inunctionary dose.

Mercurcolloid (*mercury colloid*) is a soft ointment of blackish-gray color and aromatic odor, containing 10 per cent. of colloidal mercury. It is intended for external and internal use, in place of blue ointment or blue pill. Dose per os, 2 to 5 grains three times daily, as pills, made with aluminium hydrate (marketed also as such). Mercurcolloid should not be confounded with colloidal mercury (hyrgol).

Mercuricide.—See *lithium-mercury iodide.*

Mercurivanillin is a preparation containing 40 per cent. of mercury and employed in syphilis.

Mercuro-iodo-hemol (*mercuro-iodized hemol*) is a brown powder containing 12.35 per cent. of mercury and 28.6 per cent. of iodine, with hemol. It is prescribed in syphilis accompanied by anemia or scrofula. Dose, 1½ to 2 grains, three times a day, usually in pills, sometimes given subcutaneously.

Mercurol (*mercury nucleide, mercury nucleinate*) forms a brown powder containing 10 per cent. of mercury, and soluble in water. It is an antipurulent, astringent, and alterative, claimed to be less irritating and of greater penetrating

power than the usual mercury salts. It is used topically in ophthalmia, specific gonorrhea, conjunctivitis, etc.; internally in syphilis. Dose, ⅛ to 3 grains three times a day, in pills (marketed as such, chocolate-coated). Aplied in ½ to 5 per cent. solutions or ointments.

Mercury - ammonium Tartro - phenolsulphonate is better known as *asterol;* which see.

Mercury Anilinate, $Hg(C_6H_4NH_2)_2$, occurs as a white, odorless, tasteless powder, containing 52 per cent. of Hg, and insoluble in water. It is employed in syphilis—by inunction, in 30 to 35 per cent. ointments; by intramuscular injection, rubbed up with vaselin oil; as ½ to 3 per cent. ointment on wounds; and internally ¼ to ½ grain three times a day, in pills.

Mercury Cacodylate (*mercuric cacodylate* or *methyl-arsenate*), $[(CH_3)_2AsO_2]_2Hg$, occurs as a white, hygroscopic, crystalline powder, soluble in water, and used by intramuscular injection in syphilis. Dose, ½ to 1 grain daily.

Mercury, Colloidal or Soluble.—See *hyrgol.*

Mercury Gallate, $Hg[C_6H_2(OH)_3CO_2]_2$, forms a grayish-brown powder, containing 37 per cent. of mercury, insoluble in water, but soluble in solutions of the alkalies. It is prescribed as an antisyphilitic. Dose, 1 to 3 grains per day, in pills with extract of cinchona.

Mercury Iodocacodylate is obtained in solution by dissolving 1 gram of mercury cacodylate and 2 grams of cacodylic acid in 75 grams of distilled water, adding a solution of 1 gram of sodium iodide in 3 grams of distilled water, neutralizing with dilute soda solution, and adding distilled water to make 100 grams. This liquid is said to be stable and sterilizable, and is used by injection in syphilis—1 to 2 c.c. daily or every other day. Keep from light.

Mercury Imidosuccinate.—See *mercury succinimide.*

Mercury Kakodylate.—See mercury *cacodylate.*

Mercury Nosophen.—See *apallagin.*

Mercury Oxycyanide, $HgO.Hg(CN)_2$, is ob-

tained by dissolving the mercury oxide freshly precipitated from 10 grams of mercuric chloride, and 9.5 grams of mercury cyanide in 100 grams of water. It forms a white or faintly yellow powder, soluble in water. It is used as an antiseptic, It is applied in 0.2 to 2 per cent. solution.

Mercury Para-phenolsulphonate is *hydrargyrol.*

Mercury Salicyl-arsenate is referred to under *enesol.*

Mercury Salicylate, $HgC_7H_4O_3$, is a white powder containing about 59 per cent. of mercury, and soluble in solution of sodium chloride or alkalies, insoluble in water or alcohol. It is used in syphilis and gonorrhea. Dose, ⅛ to 1 grain; applied to ulcers, etc., in 1 per cent. ointment or powder; injected in gonorrhea in 1:300 suspension every second or third day.

Mercury-sodium Phenoldisulphonate is described under *hermophenyl.*

Mercury Sozoiodolate.—See *sozoiodole-mercury.*

Mercury Succinimide, (*mercury imidosuccinate*), $Hg(C_4H_4NO_2)_2$, occurs as a white powder, soluble in about 25 parts of water with the aid of heat, slightly soluble in alcohol. It has been recommended as an agreeable antisyphilitic by injection—⅕ to ⅓ grain daily in 1 to 2 per cent. solution.

Mercury Sulphoichthyolate is described under *ichthermol.*

Mercury Tetraiodophenolphtaleinate. — See *apallagin.*

Mesotan is the trade name for *salicylic acid methyloxymethyl ester*, $C_6H_4.OH.COO.CH_2OCH_3$, which occurs as a clear, yellow fluid of aromatic odor, specific gravity 1.2, miscible with alcohol, ether, chloroform and fatty oils. It is used in the main locally in articular and muscular rheumatism, 30 minims, mixed with the same quantity of olive oil, being rubbed in two or three times a day. It is speedily absorbed. After four days its use is generally suspended for a day or two, on account of its irritant action on the skin.

Meta-arsenic Acid Anilid is described under its trade name, *atoxyl*.

Meta-benzamido-semicarbazide. — See *cryogénine*.

Metacetone is referred to under *diethyl-ketone*.

Meta-cresol Cinnamic Acid Ester is known in the trade as *hetocresol*, which see.

Meta-iodo-ortho-oxyquinoline - anasulphonic Acid.—See *loretin*.

Meta-Kolin Tablets contain 1 gram of solid cresol soap, and have the advantage over lysol and liquor cresoli saponatus of being convenient to carry. They are readily soluble in water, hot or cold.

Meta - phenylenediamine (*meta-diamidobenzene*) **Hydrochlorate** was heretofore used only as a test for nitrites and for technical purposes. Latterly Dr. Unverricht uses it as an antidiarrheal. Dose, 1½ grains three times daily; children, ⅙ to 1 grain.

Metaplasma is a new dressing material intended for use in the endermic application of salicylic acid and other remedies. It consists of an inner layer of fat-free cotton impregnated with the medicament, and an outer layer of impervious, non-medicated cotton not deprived of its fat and intimately united to the inner layer. The principal metaplasms thus far made are that of *menthol and capsicum*, which is employed as a rubefacient, and that of *salicylic acid*, which is used in rheumatism, lumbago, pleurisy, etc.

Metasol.—See under *anytin*.

Metharsinat is a French trade name for *disodium methylarsenate* (not sodium dimethylarsenate or cacodylate).

Methaform is the name of a new brand of *acetone chloroform* or *tertiary trichlorbutyl alcohol*, better known as *chloretone*. See this title.

Methenyl Tribromide is a synonym of *bromoform*.

Methethyl is a mixture of ethyl chloride and methyl chloride, employed as a spray from the

special tubes in which it is marketed, as a local anesthetic in neuralgias, pains in the joints, etc. It is said to have a more intense and more rapid action than ethyl chloride alone.

Methonal (*dimethyl - sulphone - dimethyl-methane*), $(CH_3)_2C:(SO_2.CH_3)_2$, is obtained by condensing methyl mercaptan with acetone and oxidizing with permanganate. It occurs in colorless crystals, and is used as a hypnotic. Dose, 15 to 30 grains.

Methozine is a synonym of *antipyrin*.

Methyl-acetanilid or *methyl-phenylacetamide*, is described under its trade name, *exalgin*.

Methyl Acetyl-salicylate.—See *methyl aspirin*.

Methyl Aspirin or *methyl acetyl-salicylate*, $C_6H_4.COOCH_3.OCOCH_3$, is a methyl salicylate in which an H has been replaced by an acetyl group. It forms colorless crystals, soluble in alcohol, glycerin, chloroform and fats, insoluble in water, and decomposed by alkalies. It is prescribed as an antirheumatic.

Methyl-atropine Bromide. — See *atropine methyl-bromide*.

Methyl Chloride (*chloro-methane*), CH_3Cl, is a gas of ethereal odor, obtained by distilling methyl alcohol, salt and sulphuric acid. It is marketed only compressed to a liquid in metallic cylinders, and is employed as a local anesthetic in neuralgias, etc., as a spray.

Methyl Gallate is referred to under *gallicin*.

Methyl Sulfonal is the name given to *trional* in the German Pharmacopœia.

Methyl-xanthine, Methyl-xanthine and Sodium Acetate, and Methyl-xanthine and Sodium Salicylate are facsimiles respectively of *theobromine, agurin* and *diuretin*.

Methylene is a trade name applied to the old "methyl bichloride" of Richardson, a general anesthetic consisting of a mixture of 1 volume of methyl alcohol and 4 volumes of chloroform. As this preparation contains methyl alcohol, now known to be an active poison and to produce

blindness, it should, of course, never be used.

Methylene Blue is an anilin product which is used as an antimalarial and a urinary disinfectant, and to a very limited extent also as an analgesic (subcutaneously). It is soluble in about 50 parts of water, and is incompatible with caustic alkalies, potassium iodide, potassium bichromate and reducing agents. Dose, 2 to 4 grains three or four times daily, in capsules, with a little powdered nutmeg. Care should be taken to dispense only the *medicinal* grade of methylene blue, which is chemically *tetramethyl-thionine hydrochlorate;* the ordinary dye contains zinc and arsenic, and is not fit for medicinal use. See caution under *formaldehyde.*

Methylene-creosote is referred to under *pneumin.*

Methylene-diantipyrin.—See *formopyrin.*

Methylene-dicotoin is better known as *fortoin;* see the latter.

Methylene-diguaiacol is known by several trade names: *geoform, guaiaform,* and *pulmoform.* It occurs as a yellow, tasteless powder, with a faint vanilla-like odor; soluble in alcohol, insoluble in water. It is used in consumption chiefly. Dose, 5 to 15 grains three or four times a day, as powders. See caution under *formaldehyde.*

Methylene-diguaiacol, Acetylated.—See *euguform.*

Methylene-diguaiacol Benzoic Acid Ester is the chemical designation for *guaialin.*

Methylene-diguaiacol Camphoric Acid Ester is marketed and here described under the name *camphacol.*

Methylene-ditannin is *tannoform.*

Methylene-hippuric Acid, $C_6H_5CO.N:(CH_2)_2CO.O$, is intended as a urinary disinfectant and uric acid solvent; it readily splits off formaldehyde in the system. See caution under *formaldehyde.*

Methyl-glycocholic-acid-phenetidid is a chemical designation for *kryofine.*

Methylketo-trioxybenzene is referred to under the title *gallacetophenone.*

Methyl-propyl-carbinol Urethane, or *methyl-propyl-carbinol carbamic-acid ester,* is marketed as *hedonal,* which see.

Methyl Rhodin is a trade name for *methyl-acetyl salicylate* or *acetyl-salicylic acid methyl ester,* better known as *methyl aspirin;* see the latter heading.

Metroglycerin is defined as a supposedly sterile liquid, containing 10 per cent. of glycerin, 2 per cent. of gelatin, and minimal quantities of resin acid esters. It is used by intrauterine injection as a uterine contractor and hemostatic. Tetanus germs may exist in gelatin and are difficult to destroy. Imperfectly sterilized solutions have in hypodermic use caused fatal infection and there may be risk from uterine or rectal injection also.

Microcidin is a trade name for *sodium beta-naphtolate,* which is used as a surgical disinfectant in 3 to 5 per cent. solution.

Migrainin, also called *phenazone-caffeine citrate,* is a mixture of antipyrin (phenazone), caffeine and citric acid, occurring as a white powder soluble in water and alcohol. It is used in migraine, headaches, neuralgias, etc.

Migrol is said to consist of equal parts of sodium-pyrocatechin acetate (guaiacetin) and caffeine-pyrocatechin acetate. It is prescribed in migraine, headache, and the like. Dose, 8 grains once to three times daily.

Migrosine is a 5 per cent. solution of menthol in acetic ether, used as a liniment in migraine, etc.

Mikrosol is a disinfectant consisting essentially of crude copper sulphate (75 per cent.) and copper sulphocarbolate (10 per cent.), and of the consistency of a paste.

Mildiol is a mixture of creosote with mineral oils, employed as a disinfectant.

Miracolo is a cancer remedy consisting essentially of a 16 per cent. solution of formaldehyde

in diluted alcohol. See caution under *formaldehyde.*

Mirmol is an antiseptic used in cancerous and other ulcers, consisting in the main of a 0.3 per cent. solution of carbolic acid in formalin (formaldehyde solution). See caution under *formaldehyde.*

Mitin is a white, smooth, easily triturated ointment base; "a superfatted emulsion with a high content (50 per cent.) of serum-like fluid." It is marketed in various forms and combinations.

Mollin (*sapo unguinosus*) is a superfatted potash soap made from cocoanut oil and admixed with glycerin. It was introduced some years ago as an ointment base, but is seldom called for now-a-days on this continent.

Mollisin or *mollosin* is an ointment base obtained by melting 1 part of yellow wax in 4 parts of liquid paraffin.

Monoacetyl-pyrogallol is a synonym of *eugallol.*

Monobenzoyl-arbutin.—See *cellotropin.*

Monobrom-acetanilid is a synonym of *asepsin.*

Monobrom-antipyrin is described under the title *bromopyrin.*

Monobrom-ethane is *ethyl bromide.*

Monobrom-phenol, Ortho-, also known as *bromphenol* and *monobromated phenol,* $C_6H_4Br.OH$, is a reddish-yellow, oily liquid of strong odor, soluble in 100 parts of water and in ether or chloroform, and used in 1 to 2 per cent. ointments in erysipelas, wounds, etc.

Monochloral-antipyrin.—See *hypnal.*

Monochlor-ethane is a chemical designation for the substance more commonly known as *ethyl chloride.*

Monocitryl-paraphenetidin.—See *apolysin.*

Monoiodo-dibismuth-methylene Dicresotinate is known in the trade as *biodal;* which see.

Monol is a French trade name for *calcium permanganate.*

Monophenetidin Citrate is a synonym of *apolysin.*

Monosalicylic Acid Glycerin Ester or Ether is referred to under its trade name, *glycosal*.

Morphine-bismuth Iodide is a double salt of bismuth iodide and morphine hydroiodate, recommended by A. Robin as an analgesic dusting-powder for wounds. As much of it is added to cinchonidine-bismuth iodide (erythrol) as will make about 0.025 gram of morphine per application.

Morphine Diacetic Ester is a chemical synonym of *heroin*.

Morrhual (not morrhuol) is a cod liver oil emulsion containing 0.05 per cent. of iodine (in the form of iodipin) and the hypophosphites of calcium and sodium.

Morrhuine, $C_{32}H_{45}N_3$, is one of the alkaloids found in cod liver oil; a thick oil, soluble in alcohol or ether. It has been used as a digestive. Dose, 15 grains per day; children up to 8 grains daily.

Morrhuol is the analogue of *gaduol* and other brands of the extractive of cod liver oil, 1 part representing 25 of oil. It is marketed only in 0.2 gram capsules, 1 to 3 of which are given in place of cod liver oil thrice daily.

Mucin is the mucous substance (glycoproteid) of bile, probably consisting, as marketed, of a mixture of serum globulin, true mucin, and bile salts. It occurs as a yellow to greenish-gray powder, soluble in water. It is used internally in gastric ulcer, and topically (in 1 per cent. solution in equal parts of lime water and sterilized water, with 1 per cent. of sodium bicarbonate and ½ per cent. of menthol) as a spray in rhinitis and pharyngitis, and as an injection near the site of cancers. Dose, 10 grains with 10 grains of sodium bicarbonate at the beginning of meals.

Mucogen is defined as a chlorine compound of dimethyl-phenyl-para-ammonium - beta - oxynaphtoxyamine. It occurs as blue crystals, soluble in alcohol and alkaline solutions, and almost insoluble in water. It is put forward as a cathartic. Dose, 1½ to 5 grains.

Mucol is described as a 1:30 solution of salicylic acid in alcohol and glycerin with a little menthol, and is used as a paint in infectious mouth and throat diseases.

Mueglitzol is a liquid remedy for perspiring feet, the active constituent of which is said to be a formaldehyde-evolving compound of formaldehyde and ichthyol. See caution under *formaldehyde.*

Muiracithin is a combination of inspissated fluid extract of muira puama and lecithin. It is used chiefly in sexual neurasthenia and nervous impotence. Marketed as silver-coated dragees.

Multitoxine is a mixture of tubercle alexines (10), formaldehyde (1), and water (19), used in tuberculosis—1.5 c.c. hypodermically at a dose.

Musarina is flour obtained from unripe bananas, and used as a nutrient in gastro-intestinal diseases.

Musculose is raw muscle juice recommended in tuberculosis.

Musin was originally a tamarind jam, used as a laxative. This product is no longer made. Musin now consists of 55 per cent. of castor oil and 45 per cent. of a mixture of levulose, albumin, egg yolk, and sugar. It is employed as a laxative.

Musol is a diabetes remedy reported to consist simply of salol put up in 1 gram cachets.

Mutase is a nutritive prepared from legumins and vegetables; a yellowish, odorless powder of spicy taste, and containing 58 per cent. of vegetable albumin and 2 per cent. of phosphoric acid. Dose, a small teaspoonful several times a day, pure or stirred into bouillon, milk, etc., and allowed to boil up and drunk when sufficiently cooled.

Mycodermine is a Parisian yeast extract employed in boils, etc., like beer yeast and its various preparations on the market (levuretin, cerevisine, zymin, etc.). Marketed as tablets and pills, four of the latter equalling a tablespoonful of natural beer yeast.

Mydrine is a combination of ephedrine and homatropine hydrochlorates (100:1), occurring

as a white powder soluble in water, and employed in 10 per cent. solution as a mydriatic of transient effect.

Mydrol (*iodo-methyl-phenyl-pyrazolon*) is a white powder readily soluble in water. It has been recommended as a mydriatic, in 5 to 10 per cent. solution.

Myelene is a thick, red, liquid preparation of bone marrow, used in scrofula, rickets, etc.

Myelocene is an ethereal extract of bone marrow, in vogue in England, 10 drops of which are instilled warm in deafness and other ear troubles.

Myogen is an albumin preparation obtained from the blood serum of freshly killed cattle; a fine, odorless, brownish-gray powder, tasting somewhat like glue, insoluble but swelling considerably in water, and containing 83.25 per cent. of animal albumin. It was introduced by Dr. Plönnis as a readily assimilated nutrient. Marketed also as biscuits containing about 25 per cent. of albumin.

Myronin is an ointment base prepared from wax, stearin, potash, and oil, and containing about 12 per cent. of water.

Myrrholin is a solution of myrrh in castor oil, used as an application to wounds.

Myrtillin is the name applied to Prof. Winternitz's extract of huckleberry, which is used chiefly as a paint in skin diseases.

Myrtol is the fraction of essential oil of myrtle which distills between 160 and 180° C.; a clear, colorless liquid, of pleasant odor, and soluble in alcohol. It is employed internally in chronic bronchitis, tonsillitis, cystitis, etc., and externally in parasitic skin diseases. Dose, 1 to 5 minims several times a day, in capsules or on sugar.

N

Nafalan is a recent analogue of naftalan (described below), having the same properties and action as the latter. It is marketed also as domestic nafalan (with zinc oxide), as adhesive plaster, hemorrhoidal cones, soaps, and cream.

Naftalan (*naphtalan*) is obtained by the distillation of a naphta free from resin and asphalt, derived from Naftalan in the Caucasus. It occurs as a blackish-green, ointment-like mass of empyreumatic odor, soluble in ether and chloroform, miscible with fats, and insoluble in water and alcohol. It is used in skin diseases—as 5 per cent. emulsion or ointment, 2 to 3 solution in olive oil, etc. Its stains on the linen may be removed with benzin.

Nalicin is described as a liquid containing 1 per cent. of nitroglycerin, 1 per cent. of cocaine hydrochlorate, "compound spirit of thymol," sodium chloride, formaldehyde, carbolic acid and distilled water. It is intended for use as a local anesthetic in dentistry. See caution under *formaldehyde*.

Naphta Saponata is the name given by P. Hentschel to a naftalan substitute.

Naphtasapol is another product claimed to be the same as *naftalan*.

Naphtalol and **Naphtosalol** are synonyms of *betol*.

Naphtoformin is a condensation product of hexamethylenetetramine (*formin*, etc.) and naphtol; a white, crystalline substance soluble in water or alcohol, insoluble in ether or oils. It is employed in dermatology. Its solutions should be prepared with *cold* solvents. See caution under *formaldehyde*.

Naphtol, Alpha, $C_{10}H_7.OH$, is an isomer of the official (beta-) naphtol, occuring as colorless or pinkish prisms or powder, of pungent, irritating odor and taste, soluble in alcohol and ether,

almost insoluble in water. It is used chiefly as an intestinal antiseptic and antifermentative, 5 to 15 grains in wafers or castor oil; to a small extent also externally in erysipelas, smallpox, etc., in 10 to 20 per cent. oily solutions.

Naphtol Aristol.—See *diiodo-beta-naphtol.*

Naphtol Benzoate is described under *benzo-naphtol.*

Naphtol Bismuth is referred to under its trade name, *orphol.*

Naphtol, Camphorated, (*naphtol-camphor; naphtylated camphor*), is obtained by heating a mixture of 2 parts of camphor and 1 of beta-naphtol until it melts. It forms a thick liquid soluble in alcohol. It is used as an antiseptic—with cocaine as a paint on tuberculosis processes, diluted with oil in coryza, scabies, etc. It should be protected against light.

Naphtol-charcoal is wood charcoal admixed with beta-naphtol and used abroad as an intestinal disinfectant. Dose, a small teaspoonful several times a day.

Naphtol-eucalyptol results from melting together equimolecular quantities of either alpha- or beta-naphtol with eucalyptol. Both kinds have a strong aromatic smell and very bitter taste, are insoluble in water, and easily soluble in alcohol, ether and chloroform; also soluble in olive oil. They are intended to be used as surgical antiseptics and dermics.

Naphtol Salicylate (*naphtol salol*).—See *betol.*

Narceine-sodium Sodium Salicylate.—See *antispasmin.*

Narcotile is an anesthetic obtained by the action of hydrochloric acid upon ethyl and methyl alcohol, intended especially for use in dental practice.

Narcotine (*opian; narcosine*) is an alkaloid of opium formerly believed to be possessed of narcotic properties but more recently proved to be rather without such action and hence renamed *anarcotine.* It is prescribed in malaria and migraine, chiefly as its hydrochlorate.

Narcyl is the terse name given to *ethyl-narceine hydrochlorate*, $C_{25}H_{31}NO_6.HCl$. The drug occurs as silky, flossy prisms, readily soluble in alcohol or chloroform and in 120 parts of water, slightly soluble in ether; salts of benzoic, cinnamic and citric acids increase aqueous solubility. It is used as an antispasmodic and cough sedative, in whooping-cough, asthma, etc. Dose, up to 1 grain per day; hypodermically, ⅓ grain daily.

Nargol (*nuclein-silver; silver nucleinate* or *nucleide*) is a combination of silver with yeast nuclein, occurring as a brownish-white powder readily soluble in water. Its solutions are not precipitated by dilute organic acids, sodium chloride, alkalies or albumin, but by dilute inorganic acids. It is used in ½ to 20 per cent. solutions, in eye diseases, gonorrhea, etc. Its solutions should be dispensed in a dark amber bottle.

Narkine is described as "an opium preparation from which all deleterious qualities have been eliminated;" an unsupportable claim as all opiates and other hypnotics are essentially deleterious.

Narkogen is a mixture containing chloral hydrate, potassium bromide, hyoscine hydrobromate and "narkine." It acts as a nerve sedative and hypnotic. See remark on *narkine*, above.

Natro-phen is a white, odorless, sweet powder, moderately soluble in cold water, and containing apparently sodium salicylate and acetanilid (phenylacetamide). It is prescribed as an antipyretic and anodyne. Dose, 3 to 10 grains, in capsules or powder.

Nebulates are fluids that are intended to be atomized by air pressure in a special apparatus and inhaled in different affections of the throat and respiratory tract. Fifteen different combinations are marketed, named, respectively, mezi, mekamco, pijokreo, iotan, chibromanco, meniocar, mezico, pizikreo, iodcartan, aldesar, chlorbromeco, chloriokreo, euterpen, chloreusar, latschenöl (German=ol. pini pumilionis).

Nectrianine is a culture of nectria ditissima, a

parasitic growth found on trees; used by Bra and Mongour as a remedy in cancer.

Neo-arsycodile is one of the various trade names for *disodium methylarsenate*, which see.

Neodermin is an ointment containing 85 per cent of lanolin, 10 per cent. of petrolatum, 4 per cent. of difluordiphenyl, and 1 per cent. of fluorpseudocumol, and having a decided aromatic odor. It is used in burns and various other skin lesions, pure.

Neo-Saccharin is a trade name for *saccharin*.

Nephroson is a diuretic elixir of sourwood, wild hydrangea, eupatorium, hair cap moss, water eryngo, corn silk, all green drugs, with tincture of bees, lithium benzoate and juniper spirit. Dose, a teaspoonful every 1 to 3 hours.

Nercibus is a syrup of glycerinophosphates prepared by a Philadelphia firm.

Nervitone is a nerve tonic containing the active constituents of cinchona and cola with calcium glycerinophosphate and iron, made by a Dresden firm.

Nervocidine is the name applied to the hydrochlorate of an alkaloid derived from gasu-basu, an Indian plant. The article occurs as a yellow, hygroscopic powder, readily soluble in water, and sparingly soluble in alcohol or ether. It is used chiefly as a dental local anesthetic, in 0.1 per cent. solution, but also on the eye, in 0.01 per cent. strength.

Nervol is a compound of effervescent sodium-vanadium citro-chloride (citrozone) and lithium bromide (10 per cent.). It is prescribed as a nerve sedative and tonic. Dose, a teaspoonful.

Nervosin Pills consist, according to Gutt, of alcoholic extract of valerian, alcoholic extract of angelica, aqueous extract of chenopodium, and oils of valerian, angelica and bitter orange. They are prescribed as a nerve-sedative, chiefly in hysteria.

Neuracetin is an English antipyretic and analgesic, marketed as powder and 5-grain tablets. Dose, 5 to 15 grains.

Neurodin is the trade name for *acetyl-para-*

oxyphenyl-urethane, $C_6H_4.(OCO.CH_3).NH.CO.OC_2H_5$, which chemical appears as colorless, odorless crystals, slightly soluble in water. It is used as an antineuralgic and antipyretic. Dose, 5 to 25 grains.

Neurogen is a bath salt said to consist of 73 per cent. chlorides, 25 per cent. sulphates, and 2 per cent. of a compound of ferrous oxide and glycerin.

Neurol or *neuron* is a nutritive consisting according to reports of 3 per cent. of hypophosphites, 17 per cent. of peroxides, 5 per cent. of iron compounds, and 75 per cent. of carbohydrates and nitrogenous principles. It is employed in nervous debility, rickets and scrofula. Dose, 4 to 6 teaspoonfuls per day.

Neuro-lecithin is *lecithin* derived from fresh brain and spinal cord. It is identical in action and uses with the regular lecithin obtained from yolk of egg.

Neuronal is the trade name applied to *brom-diethyl-acetamide*, $Br(C_2H_5)_2.CO.NH_2$, a crystalline substance readily soluble in alcohol, ether or chloroform, and dissolving in 115 parts of water at ordinary temperature. It is used as a hypnotic. Dose, 8 to 30 grains.

Neurosin is the name applied by two manufacturers to different products. The one is a tablet containing caffeine and nitroglycerin, and used in cardiac neuroses, hemicrania and the like; neurosin Prunier is a syrup, granules, and cachets of calcium glycerinophosphate.

Neurotone is an elixir of the glycerinophosphates of calcium and sodium. Neurotone *capsules* contain 5 grains of the combined salts, with 1/64 grain of strychnine nitrate. Marketed also in *ferro-arsenated* form in capsules.

Neurotropin is an abbreviated appellation for the German "neu-urotropin" (new urotropin).

New Sidonal.—See under *sidonal*.

New Urotropin is a brand name for *hexamethylenetetramine methylene citrate*, described under *helmitol*.

Nickel Bromide, $NiBr_2$, was brought to the

fore a few years ago as a nerve sedative, chiefly in epilepsy. It occurs as a greenish-yellow deliquescent powder, soluble in water, alcohol or ether. Dose, 2 to 8 grains in solution. Maximum daily dose, 24 grains.

Nickel Sulphate, green crystals of sweet, astringent taste and soluble in 3 parts of water, has also come somewhat into vogue latterly as a remedy in malarial migraine. Dose, ½ to 1 grain three times daily.

Nicolicin was a complex galenical preparation brought forward a few years ago as a remedy for morphinomania, but found on analysis to contain morphine, and hence since abandoned by the medical profession.

Nicotine Salicylate.—See *eudermol.*

Nieraline is a French brand of the active constituent of the suprarenal capsule. (See *adrenalin.*)

Nirvanin is the hydrochlorate of *diethyl-glycocoll-para-amido-ortho-oxybenzoic acid methyl ester*, a white powder, of bitter, metallic taste, and readily soluble in water or alcohol; brought forward as a substitute for cocaine as a local anesthetic, and claimed to be less toxic.

Nizo-lysol is lysol with an improved odor (pleasant, aromatic), and hence specially adapted for disinfecting the hands and the sick-room. Its physical properties are otherwise the same as those of lysol, and it is prepared according to the same process and contains the same proportion of cresols, but further purified.

Nodusan is defined as *dithymol-iodo-metadioxybenzene-bismuth*, and is used in suppositories in hemorrhoids.

Noitol is an eczema lotion of undivulged composition.

Nori is a nutrient prepared from sea algæ.

Normalin is an alterative tonic containing "hemoglobin and serum albuminate of arsenic" and used in skin diseases and various diatheses.

Norvargan is the fanciful name given to a freely soluble organic compound of silver con-

taining 10 per cent. of the metal and analogous pharmaceutically and therapeutically to protargol.

Nosol is not a nose remedy but a dental antiseptic and anodyne consisting of eugenol (4), clove oil (4), eucalyptus oil (4), winter green oil, (1), cinnamon oil (2), and thymol (2).

Nosophen, formerly known as *iodophen,* is chemically *tetraiodo-phenolphtalein,* $C_{20}H_{10}O_4I_4$, resulting from the action of iodine upon phenolphtalein. It occurs as a brownish-yellow, nearly odorless, tasteless powder, containing 60 per cent. of iodine, soluble in ether or chloroform, insoluble in water, and sparingly soluble in alcohol. It is used chiefly as a surgical antiseptic in place of iodoform, but to some extent also as an intestinal antiseptic. Dose, 4 to 10 grains.

Nosophen-bismuth.—See *eudoxin.*

Nosophen-mercury.—See *apallagin.*

Nosophen-sodium.—See *antinosin.*

Novozone is a mixture of magnesium peroxide and magnesium carbonate, employed as an alterative and antizymotic, analogously to biogen. Dose, 5 to 15 grains.

Nuclein as in vogue in this country is nucleinic acid derived from yeast, generally contaminated with some albumin and carbohydrates of the yeast cells. It occurs as a grayish-white, amorphous powder, soluble in dilute alkalies, slightly soluble in water, and insoluble in alcohol or ether. It acts as a germicide, and increases the white corpuscles of the blood. It is used in tuberculosis, chronic ulcers, puerperal fever, etc. —per os in capsules or solution (2 to 4 grains three times a day, between meals) or hypodermically in 5 per cent. solution in alkalinized water (10 to 60 minims diluted with the same quantity of physiological salt solution freshly boiled) for which use a special, albumen-free article only is eligible. Marketed also in 2-grain capsules, and in 5 per cent. solution for oral and for subcutaneous uses. (According to Dr. Vaughan, quinine, the coal tar antipyretics and atropine are contraindicated during nuclein

treatment.) Trillat has prepared nuclein compounds of mercury (see *levurargyre*), iron, manganese, vanadium, silver, arsenic, iodine, bromine, and fluorine.

Nuclein Horbaczewski is prepared from spleen pulp, and forms a brownish-gray powder soluble in alkaline solutions, and used like nuclein from yeast.

Nucleol is a pure grade of nuclein; a white powder rather easily soluble in warm water.

Nucleose is an albuminous nutritive prepared from vegetable nucleo-albumins.

Nural (*nutrol*) is a "pre-digested" starchy food for invalids; according to Beythien, essentially a starch syrup containing small quantities of pepsin and hydrochloric acid.

Nutricine is a nutritive prepared by mixing and boiling stale bread with raw meat and forming the mass into tablets.

Nutrin is a saccharated fatty albuminate derived from olive oil, of which it contains 51 per cent., and characterized as a palatable, digestible roborant and cholagogue, and substitute for cod liver oil. (The nutrin formerly marketed, a meat-albumin preparation, has been withdrawn from the market.)

Nutritive Roborin is a fine powder intended as an addition in baking. It contains 10 per cent. of roborin, 2 per cent. of eggs, wheat flour, cacao and sugar.

Nutrose (*casein-sodium*) is an invalid food prepared from casein of milk with the aid of alkali; a white, nearly tasteless powder, completely soluble in water. Dose, ⅛ to ½ ounce, in soup, milk, oatmeal, etc.

O

Obalgo is a dental local anesthetic of undivulged composition.

Obtundo is a dental local anesthetic containing chloretone, cocaine, nitro-glycerin, thymol,

menthol, and oils of eucalyptus, wintergreen and cloves.

Oculin is a sterilized glycerin extract of the ciliary body and vitreous humor of bulls' eyes, admixed with 0.6 per cent. of sodium chloride. It is used internally and subcutaneously in detachment of the retina.

Odda is an infant food introduced by Prof. von Mehring, and prepared from whey, flour, sugar, cacao butter and yolk of eggs, the two latter in place of butter, which often gives rise to abnormal butyric fermentation in the system. The dose is 20 grams per day for each kilo of the child's weight.

Odol is a mouth-wash extensively advertised abroad, consisting of an alcoholic solution of salol, saccharin, oil of peppermint, and traces of oils of clove and caraway.

Odos is a substitute for meat extract, prepared from oats.

Oenase is the ferment of raisins, and used in dyspepsia, anorexia, etc. Marketed only as 0.5 gram tablets, 2 to 6 of which are given daily.

Oil, Arbor, is described as a neutral product consisting of various cresols, phenols and anthracene. With an equal volume of ether it forms a liquid reputed to be of service in certain skin diseases, rheumatism, etc. It seems to be similar to naftalan.

Oil, Aristol, is a 10 per cent. sterilized solution of aristol in sesame oil, and occurs as a clear, reddish-brown, permanent liquid that has been recommended for use in various eye diseases.

Oil, Digitalin, or *huile digitalique Nativelle,* is an oily solution of Nativelle's digitalin (practically identical with digitoxin), containing ⅛ milligram in each c. c., and used slightly warmed by subcutaneous injection as a heart stimulant. Dose, 1 c. c. once or twice daily.

Oil, Margosa, is an oil obtained from the Indian lilac or "neem" tree. It is employed in leprosy, rheumatism, suppurating glands, etc.; also in mange of dogs.

Oil, Melaleuca viridiflora, is referred to under its trade name, *gomenol.*

Oil, Mercuriol, is a 45 per cent. trituration of mercuriol (mercuramalgam) in equal parts of lanolin and almond or olive oil. It is used subcutaneously in syphilis.

Olan is a generic name given to vasoliniments, a class of substances that are intended to be used like the vasogens. These substances are paraffin preparations that form perfect, stable emulsions with water ("oliments"), and are removable from the skin or body linen with water. Camphor, guaiacol, iodine, mercury, naphtol, and other olans are marketed; also a solid olan ("unguentum naftæ").

Olbios is a yellowish mass intended as a food and roborant, the composition of which is unknown.

Oleac is an eczema remedy made from pine needles, oil of cade, stavesacre seed, and cloves.

Oleocreosote (so-called *creosote oleate*) is obtained by the action of phosphorus trichloride upon a mixture of equal quantities of pure oleic acid and creosote. It forms a yellowish, nearly odorless oil of nonpronounced creosote taste. A few years ago it was in vogue as a substitute for creosote, but since the introduction of creosotal it has been but little heard of. Dose, 15 to 45 minims three times a day, in capsules or emulsion or with cod liver oil.

Omal is the terse name applied to *trichlorphenol* or *phenol trichloride,* $C_6H_2OHCl_3$; white crystals soluble in alcohol and ether; slightly soluble in water. It is used in 5 to 10 per cent. ointments or solutions in erysipelas, diphtheritic ulcers, etc., and by inhalation in tuberculosis.

Omoform is a fine, brownish-yellow, odorless powder, of undivulged composition, and insoluble in the ordinary solvents. It is intended as a substitute for iodoform in surgical practice, and it is marketed also as suppositories, lozenges (2 grains), ointment (5 per cent.), and gauze.

Oophorin is a dry preparation of the ovaries of pigs and cows, marketed in 0.3 gram tablets

and used in climacteric disorders of women, chlorosis, and the like. Dose, 1 to 3 tablets three times daily.

Ophthalmol, heralded as a remedy for granular eyelids, is, according to F. Frank, simply sterilized peanut oil.

Opian is a synonym of *narcotine*.

"**Opo**" is a prefix used in connection with a line of dry organo-therapeutic preparations introduced by Prof. A. von Poehl of St. Petersburg. These products are said to contain the active constituents of the respective organs in the most concentrated form possible, the tissue structure and precipitable albuminoids, that are without therapeutic action, having been removed. One part represents 10 to 20 parts of the fresh organ. *Opo-cerebrin* is made from the gray matter of the brain, and is prescribed in nervous affections, slow heart, etc., in doses of 3 to 5 grains thrice daily, as tablets (so marketed). It comes also in liquid form for injection. *Opo-hepatoidin* is made from livers and is used in jaundice, cirrhosis, etc.; 8 to 20 grains three times a day. *Opo-hypophysin*, from the pituitary body (hypophysis cerebri), is prescribed in acromegalia; dose, ¾ grain. *Opo-lienin* is made from the spleen, and employed in enlarged spleen, leucemia, etc.; dose, 30 to 90 grains twice a day. *Opo-medullin*, from red bone-marrow, is used in pernicious anemia, neurasthenia, chlorosis, etc.; dose, 3 to 15 grains three times a day. *Opo-ossiin*, from yellow bone-marrow, is prescribed in rickets and osteomalacia; dose, 3 to 15 grains thrice daily. *Opo-suprarenalin* is derived from the suprarenal capsule, and employed in diabetes insipidus, Addison's disease, change of life, etc.; dose, 3 to 6 grains twice daily. *Opo-thyroidin*, from thyroid gland, is prescribed in myxedema, cretinism, obesity, etc., in doses of ¾ to 1½ grains three times a day. *Opo-orchidin* is prepared from bulls' testicles, and used in spinal diseases and other nervous disorders; dose, 8 to 15 grains three times daily. *Opo-ovulin*, from ovary substance, is employed in climacteric dis-

turbances of women, hysteria, etc.; dose, 3 to 12 grains three times a day. *Opo-prostatin* is employed in hypertrophy of the prostate gland; dose, 3 grains three times a day.

Opyine is a preparation of opium claimed to be free from all objectionable constituents—an unsupportable claim, as we have said in reference to a similar preparation, as all opiates and other hypnotics are essentially deleterious.

Orangeine is a mixture of acetanilid, caffeine and sodium bicarbonate, with small proportions of podophyllin, nux vomica and blue flag. Its action is that of an antipyretic and analgesic.

Orchidin is a liquid extract of bulls' testicles, free from albuminous material, and used subcutaneously in neurasthenia, senility, etc.

Orchipin is an Italian specialty, an oily extract of fresh bulls' testicles heralded as an efficient antidote in atropine poisoning and as a nerve tonic in neurasthenia, etc.

Oresol is defined as *guaiacol glycerin* (or *glyceryl*) *ether*, and thus appears to be identical with *guaiamar*, which see.

Orexine was the name originally applied to *phenyl-dihydro-quinazoline hydrochlorate*, introduced by Prof. Penzoldt in 1890. Three years later it was applied to the pure *base*, *phenyl-dihydro-quinazoline*, which product, because possessing less of the pungent taste and irritating properties of the hydrochlorate, superseded the latter. Now the name applies to the *tannate* of the same base, introduced by Dr. Steiner in 1897. This preparation occurs as a yellowish, odorless and practically tasteless powder, insoluble in water and only slightly soluble in alcohol. It is prescribed as an appetizer and stomachic, as well as for sea-sickness and vomiting of pregnancy and that following narcosis. Dose, 8 to 12 grains twice daily, 1 hour before meals, with water. Marketed also as 4-grain tablets. Incompatible with iron compounds.

Organosol is an alcoholic solution of colloidal silver (collargol).

Origos Tablets are said to contain glutin and "all the substances necessary to the development of the body"—probably calcium phosphate and fluorides—in soluble form. It is used as a nutritive in debility, arrested development, etc.

Orphol (*naphtol-bismuth; bismuth beta-naphtolate*) is a compound of 80 per cent. bismuth oxide and 20 per cent. beta-naphtol, occurring as a grayish-yellow, almost odorless powder of non-pronounced taste, and becoming darker and more odorous with age; insoluble in water, slightly soluble in alcohol. It is prescribed as a gastro-intestinal disinfectant and astringent. Dose, 8 to 30 grains three times daily; children, 2 to 10 grains. Marketed also as 5-grain tablets.

Ortho-Bromphenol.—See *monobrom-phenol.*

Orthocol is defined by the manufacturer as "an alkaline salt of guaiacol," soluble in water, lacking odor and distinctive taste—probably *potassium-guaiacol sulphonate* (better known as thiocol). It is the main ingredient of "elixir of orthocol comp." ("benzo-guaiacol"), which contains in each 2-teaspoonful dose 4 grains of the drug with 2 grains of terpin hydrate and 1/12 grain of codeine phosphate. It is used in phthisis and chronic bronchitis. Dose, 5 to 10 grains three times daily.

Ortho-Cresol Iodide is better known as *traumatol.*

Ortho-Ethoxy-monobenzoyl - amido-quinoline is a chemical designation for *quinalgen.*

Orthoform as now marketed is the *methyl ester of meta-amido-para-oxybenzoic acid,* $C_6H_3.NH_2.OH.COOCH_3$. It occurs as a white, bulky, odorless, tasteless powder, slightly soluble in water, readily so in alcohol, ether or collodion. It is prescribed as a local anesthetic and antiseptic, in painful wounds, ulcerated larynx, etc., in 5 to 20 per cent. ointments, paints or dusting powders, or pure; internally in ulcer and neuralgia of the stomach. Dose, 8 to 15 grains. *Orthoform hydrochloride* is identical in action with the base, but freely soluble. It has been used hypodermically, but found rather irritating, and hence has been

practically abandoned. Orthoform must not be exposed to light. It is incompatible with antipyrin, bismuth subnitrate, mercuric chloride, silver nitrate, zinc chloride, and potassium permanganate.

Ortho-Oxy-benzyl Alcohol.—See *diathesin.*

Ortho-Oxybenzyliden-para-phenetidin is a synonym of *malakin.*

Ortho-Phenolsulphonic or Ortho-Sulphocarbolic Acid.—See *aseptol.*

Ortho-Oxyquinoline-meta-sulphonic Acid is described under its trade name, *diaphtol.*

Osmium Tetraoxide.—See *acid osmic.*

Osmosine is an eye drop of undivulged composition.

Osmosum is a preparation of aluminium silicate, glycerin, etc., similar to antiphlogistine and used in the same way.

Ossagen is said to consist of the calcium salts of the fatty acids of bone marrow. It is given in rickets and osteomalacia. Dose, 30 grains three times a day.

Ossalin (*adeps ossium*) is a greenish-white fat prepared from bone marrow and recommended as an ointment base, taking up twice its weight of water.

Ossin is a saccharated emulsion of cod liver oil made without gum, permanent, and readily miscible with water. Another ossin is a dark-brown, liquid extract of bone marrow used chiefly in diabetes in doses of ½ to 1 teaspoonful after meals.

Osta preparations of Dr. Kleinsorgen contain organic bone salts. There are marketed osta *biscuits,* carrying 7½ per cent. of osta salts, osta biscuits *powdered* and sweetened for adding to infants' food, osta *chocolate* containing 7½ per cent. of osta salts, and osta *pastilles* carrying 10 per cent. of osta salts.

Osteogen is a syrup of iron and calcium phosphate, used in rickets and the like.

Ovadin is a pulverulent preparation of ovary substance, analogous to ovariin.

Ovaraden is a standardized dried extract of ovary, 1 part representing 2 parts of the fresh

gland; a grayish, nearly odorless, sweetish powder, administered in disorders accompanying the menopause or following ovariotomy, chlorosis, etc. Dose, 15 to 30 grains three times daily, usually as tablets.

Ovarial is a synonym of *ovariin.*

Ovarigen is another preparation of fresh ovary substance.

Ovariin (*ovarial*) represents the dried ovaries of the cow, 1 part equalling 8 parts of the fresh organ. Its uses are the same as those of ovaraden. Dose, 3 to 6 grains three times a day, in pills or tablets. Marketed also as 3-grain tablets.

Oviferrin is a red, neutral, odorless, tasteless solution of an organic iron compound to which the formula $C_{47}N_{17}SH_{8}Fe_{3}O_{23}$ has been assigned; each tablespoonful is equivalent to 1 grain of elementary iron. It is described as a "blood builder." Dose, ½ to 1 tablespoonful in water or milk before meals and at bedtime; children, 1 to 2 teaspoonfuls.

Ovo-lecithin.—See *lecithin.*

Ovo-maltin is a dry preparation of malt extract, eggs, milk and cacao, recommended as a roborant.

Ovo-protogen is the same as *protogen.*

Ovos is a yeast extract intended to serve as a substitute for meat extract, though lacking the stimulating properties and the salts and bases of the latter. It is obtained by boiling yeast in steam, and evaporating the resulting liquid in a vacuum pan to the consistency of an extract. It yields a cloudy solution with water, is feebly alkaline, salty in taste, and has a faint odor.

Oxaphor is a 50 per cent. alcoholic solution of oxycamphor, $C_{10}H_{16}O_{2}$, a white, crystalline powder, of peppery bitter taste and easily decomposing when exposed to light or water. It is used chiefly in dyspnea, emphysema, and asthma. Dose, 15 minims two or three times a day, well diluted, in sweetened mixture usually.

Oxychlorine is represented to be a double salt of sodium and potassium tetraborate with boron oxychloride giving off oxygen. It is recommend-

ed as an antiseptic in ulcers and diseased tissues.

Oxydasine is a mixture of 1 volume of 1:2000 solution of vanadic acid and two volumes of glycerin, employed externally as an antiseptic in carbuncle, tuberculous lesions, skin diseases, etc., in 10 to 33 per cent. dilution in glycerin; internally as an alterative in place of vanadic acid.

Oxy-dimethyl-quinazine is *antipyrin.*

Oxydol is a brand of *hydrogen peroxide* solution.

Oxymethyl-allyl-sulphocarbamid.—See *pyoluene.*

Oxymethylene.—See *formaldehyde.*

Oxynaphtyl-ortho-oxy-toluylic Acid is *epicarin.*

Oxypepsin is a preparation similar to oxytuberculin, made from a culture of the sputum of a tuberculosis patient with high fever.

Oxyquinaseptol is described under *diaphtherin.*

Oxyquinoline-alum.—See *chinosol.*

Oxyquinoline Phenolsulphonate or Sulphocarbolate is *diaphtherin.*

Oxysantonin.—See *artemesin.*

Oxysparteine, $C_{15}H_{24}N_2O$, is an oxidation product of sparteine, occurring as white or faintly yellowish crystals soluble in most of the usual solvents. It is used in heart failure, generally as its hydrochlorate, subcutaneously. Dose, ½ to 1½ grains.

Oxytuberculin is what J. O. Hirschfelder calls an oxidized tuberculin.

Oxy-toluol-tropine or **Oxy-toluyl-atropeine** is *homatropine.*

Ozogen is a trade name for a 3 per cent. solution of *hydrogen peroxide.*

Ozonoform is a disinfectant mixture of unknown composition.

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Palmiacol or *cetiacol* is a derivative of guaiacol, for which the formula $C_{23}H_{40}O_2$ is given, and which has been defined chemically as *cetyl-guaiacyl* or *pyrocatechin-methyl-acetyl ether*. It is marketed as a liquid of non-pronounced taste, insoluble in water but soluble in the remainder of the ordinary organic solvents, and put up in pearls containing 3 minims each. It is intended as a substitute for guaiacol and creosote internally, chiefly in tuberculosis and chronic bronchitis. Dose, 1 to 3 or more pearls three or four times daily.

Pancreaden is a lactose trituration of dried extract of the pancreas, 1 part of which represents 2 parts of the fresh gland. It is used in diabetes mellitus. Dose, 15 to 60 grains three or four times daily.

Pankreato-kinase.—See under *eukinase*.

Pankreon is a compound of pancreatin with 10 per cent. of tannin, that resists the action of the gastric juice; a fine, grayish-red powder, of a peculiar nut-like odor and not unpleasant taste, and insoluble in water and dilute acids. It is prescribed in pancreatic diabetes, intestinal indigestion, etc. Dose, 7½ grains thrice daily. Marketed also as 0.25 gram tablets.

Panzyme is a combination of diastase, pancreatin, pepsin and rennin, together with carminatives and aromatics. It is employed as a digestive.

Papain, Papayotin, Papoid, Caroid and **Vegetable Pepsin** are various names applied to the digestive ferment contained in the juice of the fruit and leaves of carica papaya (papaw). The drug occurs as a whitish-yellow, slightly hygroscopic, odorless powder, soluble in water and glycerin, but insoluble in alcohol. It is active in alkaline, neutral or acid solution, especially in the first-named. It is used externally as a sol-

vent of false membranes, and in fissured tongue, etc.—5 per cent. solution in equal parts of glycerin and water; internally as a digestive. Dose, 2 to 5 grains.

Para-Acetphenetidin is a synonym of *phenacetin*.

Para-Amidobenzoic Acid Ethyl Ester is the chemical designation for *anesthesin*, which see.

Para-Acetamido-phenetol is *phenacetin*.

Para-Chlorsalol.—See *chlorosalol*.

Para - Diethoxy - ethenyl - diphenyl - amidine Hydrochlorate.—See *holocaine*.

Paraform or **Para-Formaldehyde**, more correctly *trioxymethylene*, and also known as *triformol*, is polymerized formaldehyde; a white powder, insoluble in alcohol or ether, and giving off formaldehyde at ordinary temperature and more rapidly when heated. It is used chiefly for the generation of formaldehyde gas for disinfectant purposes, also on warts (10 per cent. suspension in collodion); it is occasionally prescribed as an intestinal disinfectant in diarrhea, and it is employed in dentistry for disinfecting root canals. See caution under *formaldehyde*.

Paraganglin is a liquid extract of suprarenal gland, made in Italy; a clear, yellowish fluid of sweetish taste. It is employed in gastric dilatation, intestinal atony, skin diseases of gastro-intestinal origin, etc. Dose, 5 to 10 drops several times daily; in constipation, 30 to 50 drops as enema.

Parahemoglobin is a Viennese preparation made from blood, containing 0.39 per cent. of iron; a brown, odorless, and tasteless powder, insoluble in water but soluble in weak solutions of the alkalies. Dose, 5 to 10 grains 3 times a day. It is marketed also as *iron* parahemoglobin (5 per cent. Fe); *copper* parahemoglobin (0.4 per cent. Fe, 2 per cent. Cu); *manganese* parahemaglobin (0.4 per cent. Fe, 1½ per cent. Mn); *bromine*, *iodine* and *mercury* parahemoglobin.

Paranephrin is what a Darmstadt firm calls its 1:1000 solution of the active principle of the suprarenal gland in 0.6 per cent. solution of sodium chloride. For uses, see *adrenalin*.

Para-Oxy-ethyl-acetanilid is *phenacetin*.

Para-Phenetidin Citrate is a synonym of *citrophen*.

Para-Phenetidin Salicyl-acetate.—See *phenosol*.

Paraplasta is what Dr. P. G. Unna of Hamburg calls a new plaster mass spread on closely woven cotton fabric, resembling gutta percha mull. It adheres well to the skin, and is marketed medicated with zinc oxide, mercury, chrysarobin, salicylic acid, etc.

Parietin is identical with the well-known *chrysophanic acid*.

Parisol is an odorless antiseptic, disinfectant, and deodorant, for use in the sick-room, ambulances, barracks, etc. Nothing has been published regarding its composition.

Parodyne is one of the numerous synonyms of antipyrin; also the name of a French tablet containing antipyrin and sodium bicarbonate.

Parolein is a pure liquid petrolatum containing from 1 to 5 per cent. of menthol and used in a special atomizer as an abortive of coryza.

Pasterin Tablets, for use in whooping-cough, are said to consist of codeine, sodium salicylate, sodium bromide, and extract of elecampane.

Pasteurine is a preparation of formaldehyde and boroglyceride. See caution under *formaldehyde*.

Pedon is a preparation for preventing chafing and for diminishing excessive sweating of the feet. Its composition is unknown.

Pegnin is a lactose trituration of rennin, which when added to milk precipitates the casein in soft curds that are easily broken up and distributed through the milk by shaking. It is intended as an addition to milk, to render it more easily digestible.

Pelagin is an elixir containing ether, antipyrin, caffein and cocaine, recommended in seasickness.

Pelletierine Tannate is referred to here merely on account of the disparity in the dose-statements found in various works of reference. While some authors give the dose as from one to a few grains, and the maximum dose as 8 grains, others more recently advise giving from 8 up to 24 grains at a dose. The *tannate* of pelletierine being almost insoluble in water, is probably not absorbed to any extent, and hence relatively non-toxic.

Pellitol is an antiseptic ointment used in eczema and other skin diseases.

Pellotine is the alkaloid of the Mexican cactus anhalonium Williamsii, "pellote." It is marketed only as its *hydrochlorate*, colorless crystals soluble in water. It is used as a hypnotic and narcotic. Dose, ⅔ to 1½ grains.

Pelosine is a synonym of *bebeerine*.

Pemzed is a mixture of milk sugar, calcium hypophosphite, and sodium chloride, intended as a nutrient addition to milk.

Pepsin, Vegetable.—See *papain*.

Peptenzyme is stated to combine the enzymes (ferments) of seven glands concerned in the digestive functions, and is hence prescribed as an all-round digestive. Dose, 3 to 10 grains.

Pepto-iodo-eigon.—See under *eigons*.

Peptolactine is a preparation similar to the time-honored lactopeptine—consisting of pepsin, pancreatin, maltose, diastase and lactic and hydrochloric acids. Dose, 5 to 10 grains. Marketed also as tablets and elixir.

Pepto-medullin, Pepto-ovarin and Pepto-thyroidin, are peptonized extracts of bone marrow, ovary substance, and thyroid gland respectively, marketed in dry and syrupy forms.

Perborate is a medicinal alkaline perborate in powder form, intended as a convenient means of making solutions of hydrogen peroxide extemporaneously as well as an antiseptic and bleach-

ing constituent of tooth powders. When dissolved in water it is split up into hydrogen dioxide and borax. 14 grams of perborate dissolved in 100 c.c. of water yield a 10-volume solution of H_2O_2.

Percalmin is a syrup of thyme and eucalyptus, used in whooping cough and other affections of the respiratory tract. Dose, a teaspoonful to a tablespoonful.

Perco (*peru-cognac*) is described as a 1:40 solution of balsam of peru in cognac, advertised as a remedy for tuberculosis.

Percoll is a new form of adhesive plaster, in which the adhesive mass is spread on parchment instead of on linen or muslin. For use, the back of the plaster is moistened with water, which gives it pliability; on drying, it becomes stiff again.

Percutilan is the name given to a readily absorbed ointment base, the composition of which has not as yet been divulged. It forms the base of prævalidin.

Perdynamin is Dr. Theuer's *hemoglobin albuminate*, prescribed as a "blood-builder."

Perhydrol is the trade name of a 30 per cent. (by weight) solution of hydrogen peroxide, claimed to be chemically pure and free from acid. Its medicinal uses are the same as the official (3 per cent.) solution.

Periplocin, $C_{29}H_{46}O_{12}$, is a glucoside obtained from periploca græca. It occurs as a whitish to yellow powder or crystals, soluble in water and alcohol, slightly soluble in ether. It was introduced a few years ago as a cardiac tonic, especially for subcutaneous use—1/60 grain dissolved in physiological salt solution once daily or every second day.

Peronin is the arbitrary name given to *benzylmorphine hydrochlorate*, $C_{17}H_{18}NO_3.O.CH_2.C_2H_5.HCl$; a white, bitter powder, soluble in water and diluted alcohol, introduced as a substitute for morphine but latterly largely superseded by heroin (diacetyl-morphine) and dionin (ethylmorphine hydrochlorate). Dose, 1/8 to 1 grain.

Peroxols are 3 per cent. hydrogen peroxide solutions containing in addition 1 per cent. of camphor, menthol, or thymol, respectively, in alcoholic solution. See *camphoroxol*, *menthoxol*, and *thymoxol*.

Persodine is the name applied to a 1:75 solution of sodium persulphate, $Na_2S_2O_8$. It is used chiefly as an internal antiseptic and oxidizer, in tuberculosis, cancer, etc. Dose, a tablespoonful in water before the two principal meals.

Pertussin (*extractum thymi saccharatum*) is defined as a sweetened fluid extract of thyme (1:7) containing also ½ per cent. of potassium bromide. As its name indicates, it is a whooping-cough remedy. Dose, (children), a small teaspoonful to a tablespoonful, according to age, four times a day.

Perugen is synthetic *balsam of peru*.

Peruol is a 25 per cent. solution of peruscabin in castor oil, used as a paint in scabies. Marketed also as soap, containing 40 per cent. of peruol.

Peruscabin is synthetic *benzoic acid benzyl ester;* a nearly colorless liquid, of peculiar not exactly disagreeable odor, and soluble in alcohol and ether; specific gravity 1.12. It is used in scabies and other parasitic skin diseases, in oily solution—generally as peruol.

Petrogen is a "modified mineral oil" readily emulsifying with water and said to be possessed of great penetrating power when applied to the skin. It is used as a vehicle and solvent for iodine, creosote, iodoform, guaiacol, menthol, etc., analogously to vasogen, and is marketed combined with these drugs. Its combinations are used topically to produce the constitutional effects of the drugs they contain.

Petro-kreosote is not a kind of creosote but a combination of petrolatum, beechwood creosote, gentian tincture and sherry wine, used in pulmonary affections.

Petroline is "an odorless, colorless fluid obtained from the fat of the wool of sheep [lanolin] and petroleum." *Petroline compound* is a spray

for nose and throat, containing, dissolved in petroline, camphor, hydrastine hydrochlorate, menthol, eucalyptol, thymol, oil of wintergreen, cocaine, and sanguinarine nitrate.

Petromol is another of the many preparations claimed to be the same as ichthyol.

Petrosapol or *petrolan* is a saponified petroleum residue, of brown color and ointment consistency, odorless, and intended as an ointment base of high melting-point (90°C.), which enables medicaments incorporated with it to form a lasting coating on the skin; also as a succedaneum for naftalan.

Petrosulfol is Austrian ichthyol (*ichthyolum austriacum*).

Petrosulfol, Albuminated, is an Austrian analogue of *ichthalbin*.

Petrovasol is a substitute for ichthyol-vasogen, employed locally in various inflammatory processes.

Petrox is a mixture of paraffin oil (4), oleic acid (2) and spirit of ammonia (1), intended as a substitute for vasogen in dermic medication.

Phaselin is defined as "the active principle of the bean of dilkos mexicano," suggested as a digestant active alike in alkaline or acid media—analogous to papain. Dose, 3 to 10 grains.

Phecine forms a white, odorless powder, soluble in water and alcohol. It is prescribed as an antiseptic astringent, largely in skin diseases. (It has been claimed that this is not a homogeneous chemical, but a mixture of resorcin and zinc sulphocarbolate.)

Phenalgin is "*ammoniated phenylacetamide*" (phenylacetamide being acetanilid), occurring as a white powder of slightly pungent odor but non-pronounced taste, and nearly insoluble in water. Its action is that of acetanilid—antipyretic and antineuralgic. Dose, 5 to 20 grains, usually as tablets (2½ grains) or capsules (5 grains).

Phenalin (not to be confounded with phenolin) is the name applied to tablets each containing 0.05 gram of phenolphtalein and having laxative action. Dose, 1 to 4 or more.

Phenamine.—See *phenocoll hydrochloride.*

Phenatol is a composite antipyretic and antineuralgic, consisting essentially of acetanilid, caffeine and potassium tartrate. Dose, 5 to 20 grains.

Phenetidin Amygdalate or Mandelate.—See *amygdophenin.*

Phenetidid Quinine-Carbonic-acid Ester is described under *chinaphenin*, its trade name

Phenetidin Tartrate will be referred to under *tartrophen.*

Phenocoll Hydrochloride (*amido-acet-paraphenetidin* or *glycocoll-phenetidin hydrochlorate; phenamine*), $C_6H_4(OC_2H_5)(NH.CO.CH_2.NH_2).HCl$, is a white, crystalline powder, of sweetish-bitter taste, soluble in alcohol and in 17 parts of water. It is used as an antipyretic and antimalarial. Dose, 5 to 15 grains. Incompatible with alkalies, ferric chloride, and piperazin.

Phenolactin is a synonym of *lactophenin.*

Phenol-Bismuth (*bismuth carbolate*) is a white, neutral, non-caustic powder, of slight odor and taste, containing 80 per cent. of bismuth oxide and 20 per cent. of phenol. It is employed as a gastro-intestinal disinfectant. Dose, 5 to 15 grains, several times daily.

Phenolid is an antipyretic and analgesic consisting, according to reports, of equal parts of acetanilid and sodium bicarbonate. Dose, 5 to 10 grains.

Phenolphtalein was heretofore known only as a reagent, but recently came into vogue as a laxative, chiefly under the trade name *purgen* or *purgo.* Dose, 1½ to 7½ grains, as powder or tablets.

Phenopast is a preparation consisting of 50 per cent. of carbolic acid and a neutral soap.

Phenopyrin (*antipyrin carbolate*) is a compound of 1 part of phenol and 2 parts of antipyrin; an oily, colorless and odorless liquid, soluble in alcohol and ether, but insoluble in water. It is used chiefly externally, as an anodyne; internally as an antiseptic. Dose, 3 to 15 grains.

Phenosal (*para-phenetidin salicyl-acetate*) occurs as a white powder, having a sour-bitter taste, and sparingly soluble in water, alcohol and ether. It has antipyretic and antineuralgic action. Dose, 5 to 15 grains several times daily, in powders or tablets.

Phenosalyl (*saliphenol*) is a composite antiseptic in vogue in France but no longer on the American market. Various formulas have been given for it, the most generally accepted one being: carbolic acid (90), salicylic acid (10), lactic acid (20), and menthol (1), mixed by the aid of heat. It is used mostly in ⅛ to 1 per cent. solutions.

Phenosuccin.—See *pyrantin.*

Phenyl-benzamid.—See *benzanilid.*

Phenyl-dimethyl-pyrazolon is a chemical synonym of *antipyrin.*

Phenyl-ethyl-urethane and **Phenyl-ethyl Carbamate** are synonymous terms for the product marketed as *euphorine.*

Phenyl-methyl-ketone.—See *hypnone.*

Phenylon is one of the numerous synonyms of *antipyrin.*

Phenyl Salicylate is *salol.*

Phenyl-urethane.—See *euphorine.*

Phesin (not phecine) is a sulpho derivative of phenacetin, of the formula $C_6H_4.O.C_2H_5.SO_3Na.NH.CO.CH_3$; a reddish-brown, odorless powder, of slightly pungent and salty taste, readily soluble in water, and prescribed as an antipyretic and antineuralgic. Dose, 7½ to 15 grains. The article is not on this market.

Philoral is the name adopted for throat pastilles consisting essentially of suprarenal gland substance, anesthesin and coffee extract, and used in painful affections of the throat.

Phœnixin is the fanciful name recently applied to *carbon tetrachloride*, the drug being employed as a local anesthetic in neuralgias, etc.

Phorxal is a nutritive preparation made from blood; a fine, odorless, tasteless powder, soluble in aqueous liquids. Dose, ½ to 1 ounce daily, with soup, warm milk, etc.

Phosferrol is a "blood and nerve tonic," each fluid ounce of which represents 2 drams of cod liver oil, extract of malt, 8 grains of calcium glycerinophosphate, 4 grains each of sodium and potassium glycerinophosphate, 2 grains of organic iron, 1/20 grain of strychnine nitrate, and aromatics. Dose, 2 drams three times daily.

Phosote or Phosphote is a phosphated creosote occurring as a nearly colorless, syrupy, heavy liquid, of faint creosote odor and taste, and containing 80 per cent. of creosote and 20 per cent. of phosphoric anhydride. It is prescribed in tuberculosis, etc., instead of creosote, usually hypodermically—15 to 45 minims daily—sometimes per os in capsules.

Phosphergot is described as a mixture of equal parts of sodium phosphate and powdered ergot, advertised as a tonic in tuberculosis!

Phospho-albumin is a complex organic product prepared from the testicles, brain and spinal cord of young bulls. Its active constituents are lecithin, spermine and nuclein. It is employed as a "nerve tonic." Dose, a tablespoonful of the liquid, or 1 tablet (5-grain), after meals.

Phospho-guaiacol.—See *guaicophosphal.*

Phospho-nuclein is a product analagous to phospho-albumin, marketed as 5-grain tablets and in combinations.

Phosphorin is the name given to chocolate pastilles each containing 1/250 grain of phosphorus.

Phosphotal is a phosphited creosote, occurring as a thick, reddish-yellow, oily liquid, of creosote odor and pungent taste, soluble in alcohol, chloroform, oils, and glycerin, and containing 90½ per cent. of creosote. It is used in phthisis, etc., instead of creosote. Dose, 3 to 15 minims three times a day, in milk, jelly, cod liver oil emulsion, etc.

Phthisin Tablets contain 0.27 gram of fresh bronchial gland substance and are employed in various diseases of the lungs.

Phthisocan is a substitute for *sirolin* (syrup of thiocol), a solution of potassium-guaiacolsulphon-

ate in syrup of orange reinforced by tincture of bitter-orange peel. Dose, one to two teaspoonfuls.

Phthisopyrine is a tablet containing aspirin (0.1 gram), sodium arsenite (0.00025 gram), and camphoric acid (0.1 gram), used as an antipyretic and antidiaphoretic in phthisis. Dose, 2 to 8 tablets two to four times a day, after meals, in cold milk or lemonade; alkaline beverages should be avoided.

Physiological Nutritive Salt or Blood Salt is what Naegeli calls a mixture of potassium chloride, phosphate and sulphate; sodium phosphate, chloride, and carbonate; calcium phosphate and fluoride; magnesium sulphate; manganese sulphate; iron sulphate and phosphate; and silicic acid—all in the proportions in which they exist in the blood. It is marketed only in 0.1 gram tablets, and is used chiefly in arterial sclerosis. Dose, 2 or 3 tablets per day.

Physol (*physiological solvent*) is, according to M. I. Wilbert, an efficacious and stable pepsin solution, consisting of pepsin (50), menthol (0.5), eucalyptol (0.5), oil of wintergreen (0.5), alcohol (10), glycerin (50), diluted hydrochloric acid (20), and distilled water (to make 1000).

Phytalbumose is a synonym of *abrin*.

Phytin is described as the calcium and magnesium double salt of anhydro-oxymethylene-diphosphoric acid, occurring in the seeds of various plants; a white, odorless, nearly tasteless powder, containing 22.8 per cent. of phosphorus and soluble in water. It is prescribed as a nerve and bone nutrient in children. It is marketed as 0.25 gram capsules, 4 of which constitute the adult daily dose; 1 to 2 that for children.

Picratol (*silver picrate; silver trinitrophenolate*), $C_6H_2.O.(NO_2)_3.Ag+H_2O$, is a yellow, flocculent substance, containing 30 per cent. of silver, soluble in 50 parts of water and 60 of alcohol, and also soluble in glycerin, ether, or chloroform. It is used, like argyrol, protargol, and the other recent organic compounds of silver, in gonorrhea,

eye disease, nose and throat troubles, etc.; mostly in ½ to 2 per cent. solutions.

Picrol is chemically *potassium diiodo-resorcin monosulphonate*, $C_6HI_2(OH)_2.SO_3K$, and occurs as a white, odorless bitter powder, soluble in water and glycerin, and containing 52 per cent. of iodine. It is an external antiseptic, analogous to sozoiodole.

Pijokreo and **Pizikero.**—See under *nebulates.*

Pilocarpine Carbolate or Phenylate.—See *aseptolin.*

Pilocarpinum Compositum is what Carossa calls tablets containing ½ milligram of pilocarpine hydrochlorate together with adjuvants and drugs reducing the reflexes. It is intended to be used in phthisis during the incipient stage. Dose, 1 to 3 tablets several times daily.

Pinædol is an insomnia remedy of undivulged composition.

Pinesyl is an English antiseptic and disinfectant making an emulsion with water and in other respects similar to creolin.

Pinol is a trade name for ethereal *oil of pinus pumilio*, which is used in chronic pulmonary affections.

Piperazin (*diethylene-diamine; pyrazin hexahydride; piperazidin; ethylene-imine*), results from the action of ammonia upon ethylene chloride. It occurs as colorless, deliquescent needles, soluble in water or alcohol. It is employed as a supposed solvent of uric acid in gouty conditions. Dose, 15 to 30 grains per day, in water. It should be kept well stoppered and in a dry place, as it readily absorbs moisture and carbonic acid from the atmosphere. It precipitates many alkaloids from solutions of their salts, owing to its alkalinity. This may be avoided by first neutralizing the drug in solution. Marketed as water (15 grains in a quart) and 1-gram tablets (10 in a tube).

Piperazin Ichthyolsulphonate.—See *ichthyolidin.*

Piperazin Quinate (or *chinate*) is the chemical designation for *sidonal;* see this title.

Piperazin Sulphoichthyolate is described under its trade name, *ichthyolidin.*

Piperidin Bitartrate is intended as a uric acid solvent. Dose, 10 to 15 grains three times daily.

Piperidin Guaiacolate.—See *guaiaperol.*

Piral is *pyrogallic acid* in crystals.

Pix-cresol is defined as "a salt obtained either from tar or guaiacol; $C_6H_6N.SO$; non-toxic, non-volatile; a powerful deodorizer, and medicinal antiseptic."

Pixol is a mixture of 3 parts of wood tar, 1 of potash soap and 3 of 10 per cent. potassa solution; a clear, thick, dark-brown liquid miscible with water. It is used as a disinfectant, in 2 to 5 per cent. solutions.

Plantan is a mixture of paraformaldehyde and powdered charcoal, meant to be ignited for the generation of formaldehyde gas for general disinfectant purposes.

Plantose is plant albumin derived from rape seed; light-yellow, tasteless powder containing 12 to 13 per cent. of nitrogen and insoluble in water. It is used as a nutrient, in quantities of 1 to 3 ounces per day.

Plasment is a mucilage prepared from Irish and Iceland mosses, with the addition of glycerin and benzoin, and intended as a vehicle for urethral injections.

Plasmon, also known as *caseon* and *Siebold's milk albumin,* is an albuminous nutritive prepared from casein; a faintly yellow, odorless, slightly sweetish, granular powder, soluble in hot water. Dose, one or more teaspoonfuls, with soup, etc., or as biscuits.

Plesioform is said to be an analogue of *thiol.*

Plesiol is one of the numerous organic sulphur compounds claimed to be the same as *ichthyol.*

Pneumin is *methylene-creosote,* a yellowish, odorless, tasteless powder, used in tuberculous affections. Dose, 0.5 to 1 gram 4 to 8 times daily,

as tablets (so marketed). See caution under *formaldehyde*.

Pollantin is the name applied to Dunbar's hay fever antitoxin, which is marketed in powder and liquid forms, and used for the relief of attacks of hay fever and rose cold and as a preventive. The liquid is used mostly on the eye, the powder in the nose.

Polychloral is a compound of pyridine and chloral, slowly soluble in cold water, more rapidly in hot water or in alcohol, with the formation of chloral hydrate or alcoholate respectively. Alkalies decompose it into chloroform and formic acid. It possesses hypnotic and anesthetic properties. See caution under *formaldehyde*.

Polyformin is obtained by dissolving resorcin in formaldehyde solution and adding an excess of ammonia without cooling. It forms an odorless, yellowish-brown amorphous body, insoluble in the usual solvents, and intended for use as a substitute for iodoform externally. *Polyformin soluble* is diresorcin-hexamethylenetetramine $[C_6H_4(OH)_2]_2.(CH_2)_6H_6$ and results from combining 2 molecules of resorcin with 1 of hexamethylenetetramine. It occurs as a white crystalline substance, soluble in water or alcohol and insoluble in ether or oils; hot water liberates formaldehyde and changes the drug to an insoluble product. It is used externally in skin diseases; internally as an antifermentative. See caution under *formaldehyde*.

Porcherine is a substitute for cane sugar—apparently a solution of saccharin in glycerin.

Potassacol is a trade name applied to *potassium-guaiacol sulphonate* (better known on this market as *thiocol*). It is one of the ingredients of triacol.

Potassium Copaivate, $C_{20}H_{29}O_2K$, is a thick, reddish-brown, alkaline liquid, of acrid, peppery taste and copaiva odor; soluble in alcohol, ether or chloroform, decomposed slowly by water. Dr. L. Kolipinsky has recommended it in place of copaiba. Dose, 50 to 150 grains per day, in capsules.

Potassium Glycerinophosphate, $C_3H_7O_6PO(OK)_2+H_2O$, is marketed as a 75 per cent. aqueous solution—a colorless to yellowish, viscid liquid, soluble in all proportions in water. It is used as a nerve tonic and reconstructive, chiefly subcutaneously. Dose, hypodermically, 3 or 4 grains once daily in sodium chloride solution; per os, 4 to 10 grains thrice daily as solution or syrup. Its liquid preparations are prone to spoil on keeping, are hence best prepared in small quantities at a time. A drop or two of chloroform to the fluid ounce renders them far more stable.

Potassium Oxyquinoline-sulphate is better known as *chinosol*, which see.

Potobonum is a bean-husk tea used in gout, rheumatism and diabetes.

Praevalidin is what W. Koch calls a readily absorbed camphor ointment intended to be used by inunction instead of hypodermic injections of camphor. It has been used in phthisis, emphysema, chronic bronchitis, etc. It consists of percutilan with 10 per cent. of camphor and a little balsam of peru, oil of eucalyptus and oil of rosemary.

Prasoid.—See under "globularin."

Primon is a *lecithin* obtained from vegetables.

Probilin Pills consist of salicylic acid, sodium oleate, and "sufficient phenolphtalein and menthol to mildly stimulate the gastro-intestinal tract and insure greater tolerance." They act as a cholagogue, and are used in diseases of the biliary passages—particularly in gall-stone disease. Dose in the latter affection, 3 or 4 pills with about a pint of hot water before breakfast and at bedtime for twenty consecutive days, hot applications to the hepatic region being made at the same time in the beginning, then for twenty days more 3 or 4 pills are taken either morning or evening the same way as before.

Proferrin (*iron nucleo-proteid*) is an organic compound of iron to which the astounding formula $C_{972}H_{1555}N_{250}S_8P_8O_{315}Fe_{42}$ is assigned by the manufacturers. It occurs as a reddish-brown powder, insoluble in water and acid liquids, but

soluble in weak alkaline fluids such as the intestinal secretion. It is intended as a readily assimilated, non-astringent and well tolerated form of iron. Dose, 5 to 10 grains three times a day, as powders or tablets. Marketed also as chocolate-coated tablets (1, 2½ and 5-grain), and as compound tablets (3 grains, with 1/60 grain of strontium arsenite and 1/100 grain of strychnine phosphate).

Propione.—See *diethyl-ketone*.

Propionyl-phenetidin is the chemical designation for the article marketed as *triphenin*, which see.

Propionyl-salicylic Acid, $C_6H_4.OC.O.CH_2CH_2.COOH$, has been recommended as a remedy in gout and rheumatism. It occurs as white, shining leaflets that are sparingly soluble in water, more readily soluble in ether or chloroform, and are decomposed by alkalies. Dose, 10 to 20 grains.

Propol (*propolisin-vasogen*) is a mixture of propolisin and vasogen. It is intended to be used as a disinfectant of wounds as well as of surgical instruments.

Propolisin is a reddish-brown, oily liquid of characteristic but not unpleasant odor, reported to be essentially identical with crude oil of amber and to be employed as an antiseptic, especially in tuberculous wounds.

Prostaden is a saccharated dried extract of prostate gland, 1 part of which represents two of the fresh gland. It is employed in prostatic hypertrophy. Dose, 10 to 40 grains per day, as tablets usually.

Protalferrin is defined as "an organic combination of iron, protein, albumin and a small percentage of sodium chloride," and is extolled as a readily assimilated form of iron. It is marketed as capsules, each containing 5 grains of protalferrin and 1/12 grain of extract of nux vomica. Dose, 2 capsules three times a day.

Protan (*tannin nucleo-proteid*) is a brown, odorless powder, containing 50 per cent. of tannic

acid and sparingly soluble in water or acid solutions, but readily, though slowly, soluble in alkaline fluids. It is recommended as an intestinal astringent in diarrhea; it passes the stomach scarcely acted upon, and acts chiefly only on reaching the intestines. Dose, 10 to 30 grains every hour to several hours, as powders or tablets. Marketed also as 2½, 5 and 7½-grain tablets and in various combinations.

Protargol (*silver-proteid*) is the best-known of the various modern organic compounds of silver. It occurs as a yellowish, light, neutral powder containing 8 per cent. of metallic silver, readily soluble in water or glycerin, and not precipitated by alkalies, alkali sulphides, albumin or sodium chloride. It is used externally as an astringent bactericide—chiefly in gonorrhea and purulent eye diseases, but also in nose and throat troubles, ulcers, etc. In gonorrhea ¼ to 2 per cent. solutions are employed; in eye diseases ½ to 5 per cent. solutions; in ear, nose and throat troubles 2 to 10 per cent. solutions; and on ulcers, etc., 5 per cent. ointments or dusting powders. There would probably be the same risk of permanent discoloration of the skin from any internal use of this preparation as from silver nitrate. Its solutions must be made with *cold* water, and kept in dark bottles; and contact with metallic objects must be avoided. To prepare solutions, place the drug in a glass or porcelain mortar containing a little cold water; stir into a thick paste, and gradually add more water, according to the strength desired. Or sprinkle the powder gently upon the surface of the required quantity of cold water, then cover the vessel and set it aside until solution has been effected. If it be desired to rub down protargol in a mortar, the latter as well as the pestle should be moistened with a drop of glycerin. Bougies and suppositories of the remedy are made by various firms. Keep the bottle in a dry, cool place, and protected against light. Protargol stains on the linen when fresh readily disappear on washing with soap and water. Old stains should be treated with solution of potassium iodide, sodium hyposulphite, etc.

Proteinum pyocyaneum Honl is an extract of cultures of the bacillus pyocyaneus; a greenish-yellow, faintly alkaline liquid of an odor reminding of tilia flowers, that retains its efficacy for a long time if kept in a cool, dry, and dark place. It has been used by Dr. Janowsky in ulcers of the leg, pure on gauze tufts.

Proteol is a formaldehyde-albumin compound of not clearly defined constitution. See caution under *formaldehyde*.

Protogen (*ovo-protogen; methylene-albumin*) is obtained by heating egg albumin with formaldehyde, and occurs as yellow powder. This is put forward as a nutrient notwithstanding the fact that formaldehyde is a poison and that there is risk from any of its compounds. There is a risk also of blindness from it. See further under *formaldehyde*.

Proton (not protan) is a nutritive prepared by Jost from milk; a white powder containing 90 per cent. of albumin and soluble in water, and hence closely similar to plasmon.

Protonuclein is "a combination of all the nucleins in the body, separated in unchanged form from the lymphoid structures of healthy animals without the use of chemicals." It is used internally or hypodermically as a tissue-builder and as an antitoxin in infectious diseases, and topically on surgical lesions. Dose, 3 to 10 grains three or four times daily, before meals. Marketed also as 3-grain tablets, 2-grain special tablets, and special powder.

Protozone is a lotion for eczema and other skin affections, the composition of which is given as "thymol-sodium benzoate, sodium salicylate, citronol (?), glycerin, and alcohol." It is applied pure as a rule.

Protylin (*phosphorus-albumin*) is a synthetic proteid, an organic compound of phosphorus and albumin, containing 2.7 per cent. of the former element. It occurs as a white, odorless, tasteless powder, insoluble in water but soluble in alkaline liquids. It is advertised as an assimilable, non-

toxic form of phosphorus, in place of lecithin and the glycerinophosphates in cases of neurasthenia, rickets, scrofula, etc. Dose, 10 to 20 grains three times daily, in soup, broth, etc.; children, 4 to 15 grains. It must not be boiled with the food. *Brom-protylin* (bromated phosphorus-albumin) contains 2.7 per cent. of phosphorus and 4 per cent. of bromine organically combined with albumin, and is employed as a nerve-nutrient and sedative in hysteria, epilepsy and other neuroses. It is a faintly yellowish powder, of slight bromine taste and odor, not perceptible when mixed with food. Dose, 10 to 20 grains three or four times a day. *Iron-protylin* (ferrated phosphorus-albumin) is protylin with 2.3 per cent. of iron. It forms a white, odorless and tasteless powder, soluble in alkaline fluids and prescribed as a constructive and hematinic in doses of 10 to 20 grains thrice daily, in soup, broth, etc. Protylin and its combinations are marketed also as 0.25 gram tablets.

Prunitura is a plum extract syrup used abroad as a purgative.

Pseudo-hyoscyamine is an alkaloid existing beside hyoscyamine, in duboisia. It is used as a sedative chiefly in the insane. Dose, 1/120 to 1/60 grain; in the insane, 1/30 to 1/10 grain subcutaneously.

Pulmoform is a trade name for *methylene-diguaiacol*, which see.

Pulmonin (*pulmogen*) is an extract of fresh calves' lung, heralded as a remedy in various pulmonary affections. It is marketed as 0.25 gram tablets, 5 to 10 of which constitute the daily dose.

Pulvis cuticolor Unna consists of zinc oxide 2 parts, magnesium carbonate 3, white bole 3, red bole 2, and rice starch 10. It is used in certain skin diseases.

Punicine is a synonym of the well-known *pelletierine*.

Pural is a disinfectant consisting, according to Rosenthal, of powdered charcoal impregnated with carbolic acid, menthol and benzoic acid, and marketed compressed into cylinders which are

ignited at one end and placed on saucers, thus giving off the disinfectant vapors.

Purgatin (*purgatol*) is the trade name applied to *anthrapurpurin diacetate* or *anthrapurpurin diacetyl ester*, a yellow, tasteless powder insoluble in water and diluted acids but dissolving with a dark-red color in alkali solutions. It is used as a mild purgative in habitual constipation. Dose, 10 to 30 grains at bed-time. Marketed also as chocolate tablets containing 0.3 gram of the drug. It imparts a blood-red color to the urine.

Purgella is a palatable, effervescent laxative consisting of phenolphtalein, rochelle salt, fruit oil-sugar, and tartaric acid.

Purgen (*purgo*) is a tablet consisting essentially of phenolphtalein, a chemical heretofore known only as an indicator, and now recommended as a mild purgative. Purgen, for adults, contains in each tablet 0.1 gram, *baby* purgen 0.05 gram, and *strong* purgen 0.5 gram, of phenolphtalein.

Puro is a clear, dark-red, semi-solid mass prepared under pressure from fat-free meat. It is employed as a dietetic. Dose, 3 or 4 teaspoonfuls daily, in milk, bouillon, etc.

Puroform is a disinfectant solution said to consist of zinc chloride, formaldehyde, thymol, menthol and eucalyptol. See caution under *formaldehyde*.

Puronal is a mixture of acetanilid (97.6) and bismuth oxyiodide (2.4), employed as a wound antiseptic.

Pyoktanin is the name given by Prof. Stilling, of Strassburg, to pure *methyl violet*, which is penta- and hexa-methyl-para-rosanilin hydrochlorate; a violet powder, soluble in 75 parts of water, 12 of alcohol, and 50 of glycerin, but insoluble in ether. It is occasionally prescribed as a surgical antiseptic and discutient, chiefly in veterinary practice; its disagreeable staining properties have caused it to be abandoned largely in human medicine. It has also been given internally in gastric and other visceral cancer. Used pure or in trituration with boric acid, or as oint-

ment, or as a "pencil," or in 1:1000 to 1:100 solutions. It is incompatible with corrosive sublimate. Its stains may be removed by rubbing well with soap and washing with alcohol.

Pyoktanin-mercury (*pyoktanin and mercuric chloride*) is a violet powder difficultly soluble in water or alcohol, containing 16 per cent. of mercury, and used in gonorrhea (1:2000 solution), burns (with an equal part of starch), favus, etc.

Pyoktanin, Yellow.—See *auramine.*

Pyoluene (*oxy-methyl-allyl-sulphocarbamide*) is described as a bactericide equal to corrosive sublimate yet non-toxic, and soluble in water, alcohol, glycerin or ether.

Pyraloxin is the name given by Dr. P. G. Unna to *oxidized pyrogallol*, and recommended by him as a substitute for pyrogallic acid in skin diseases. It occurs as a black, insoluble powder and is said to be non-irritating.

Pyramidon (*dimethylamido-antipyrin*) is a derivative of antipyrin in which an H atom is replaced by a dimethylamido group; a yellowish-white, almost tasteless powder, soluble in 10 parts of water. It is an antipyretic and analgesic, largely used in the fever of consumptives. Dose, 4 to 10 grains, as powders or in solution. Incompatible with ferric chloride and spirit of nitrous ether. *Pyramidon camphorate, neutral*, consists of 52 parts of pyramidon and 23 of camphoric acid, and has some antihidrotic action, though the antipyretic action predominates; dose, 8 to 12 grains. *Pyramidon camphorate, acid*, is a compound of 47 parts of pyramidon and 32 of camphoric acid, that has still greater sweat-arresting power than the neutral camphorate, and used in phthisical fever. Dose, 12 to 15 grains. *Pyramidon salicylate* is specially intended for use in rheumatism and neuralgias; dose, 8 to 12 grains.

Pyrantin (*phenosuccin; para-ethoxy-phenyl-succinimide*) is obtained by melting the hydrochlorate of para-amido-phenetol or phenacetin with succinic acid, and forms colorless needles soluble in 1317 parts of water, insoluble in ether. *Soluble*

pyrantin is the sodium salt of pyrantin. Both preparations are antipyretics. Dose, 5 to 15 grains.

Pyranum.—See *pyrenol.*

Pyrazolonum Phenyldimethylicum is the German Pharmacopœia name for *antipyrin.*

Pyrazolonum Phenyldimethylicum Salicylicum is the designation of the German Pharmacopœia for *salipyrin,* which see.

Pyrenol (originally called *pyranum*) is defined as "benzoyl-thymyl-sodium benzoyl-oxybenzoate; a compound of benzoic acid, salicylic acid and thymol in the form of a water-soluble sodium salt." It occurs as a white, slightly hygroscopic powder of aromatic odor, and soluble in 5 parts of water and in 10 of alcohol. It is prescribed as an antipyretic and anodyne in pulmonary affections, rheumatism, etc. Dose, 8 to 30 grains, with cold water; hot solvents should be avoided. Marketed also as 0.5 gram tablets.

Pyretin is a mixture of acetanilid, caffeine, calcium carbonate, sodium, bicarbonate, and potassium bromide, possessed of antipyretic and anodyne power. Dose, 5 to 15 grains.

Pyridine Tannate is intended for a uric acid solvent; also an intestinal astringent and wound antiseptic. It is a powder, sensitive to light.

Pyrocatechin Methyl-benzyl Ether. — See *brenzcain.*

Pyroctin is another of the numerous composite antipyretics and anodynes, the base of which is acetanilid. Dose, 5 to 15 grains. Marketed also as 5-grain tablets, plain and in combinations.

Pyrodin.—See *acetyl-phenyl-hydrazin.*

Pyroform (*bismuth oxyiodo-dipyrogallate*) is obtained by treating bismuth oxyiodide with oxidized pyrogallol (pyraloxin), and has been introduced as a relatively non-toxic substitute for pyrogallic acid in dermatology. It occurs as a gray, insoluble powder.

Pyrogallol-bismuth is described under *bismuth pyrogallate.*

Pyrogallol Diacetate.—See *saligallol.*

Pyrogallol Mono-acetate.—See *eugallol.*

Pyrogallol, Oxidized.—See *pyraloxin.*

Pyrogallol Triacetate.—See *lenigallol.*

Pyroglycerin is a synonym of *nitroglycerin.*

Pyrolin is a disinfectant consisting essentially of magnesium acetate.

Pyrosal is the trade name for *acid antipyrin salicylate,* an antineuralgic occurring as a white powder, of bitter-acidulous taste, sparingly soluble in water, and split up into its components in the intestines. Dose, 8 to 15 grains two to six times daily, in powders or as tablets (also so marketed).

Pyrozone is a trade name for 3 per cent. solution of hydrogen peroxide. *Pyrozone, caustic,* is a 25 per cent. solution of hydrogen peroxide.

Q

Quartonol Tablets consist of the four "tonols" (glycerinophosphates) of calcium (2¼ grains), sodium (2¼ grains), quinine (½ grain), and strychnine (1/200 grain). They are prescribed as nerve and tissue nutrients.

Quassone is a liquid nerve-sedative stated to be non-alcoholic, the composition of which is unknown.

Quinacetine is a base of the formula $C_{27}H_{31}NO_5$. Its *sulphate,* the only salt marketed, occurs as white, lustrous needles adhering in tufts, of a slightly astringent and bitter taste, and readily reduced to powder. It forms freely soluble acid salts, incompatible with metallic hydrates and with carbonates. Its action and uses are the same as that of quinine sulphate. Dose, 5 to 15 grains.

Quinalgen (also known as *analgen, benzanalgen,* and *labordine*) is chemically ortho-ethoxy-anamonobenzoyl-amido-quinoline, $C_9H_5N(OC_2H_5)NH.CO.C_6H_5$, and forms a white tasteless powder soluble in hot alcohol and in slightly acidulated water, but insoluble in pure water. It is prescribed as an analgesic and antipyretic, in neuralgia, rheu-

matism, febrile affections, etc. Dose, 5 to 15 grains 2 or 3 times a day; maximum daily dose, 45 grains.

Quinaphtol (*chinaphtol*) is the name given to *quinine beta-naphtol-monosulphonate*, $C_{24}H_{28}N_2O_2.(C_{10}H_6OH.SO_3H)_2$. The drug occurs as a yellow powder slightly soluble in hot water or alcohol, and containing 42 per cent. of quinine. It is employed as an intestinal antiseptic and as an antipyretic. Dose, 8 to 15 grains.

Quinaseptol.—See *diaphtol.*

Quinetum Carboxy-ethyl Ester is described under *euchinal.*

Quinine Acetylsalicylate (*quinine-aspirin*) occurs as white, bitter needles of the composition $C_{20}H_{24}N_2O_2.C_6H_4O.C_2H_3O.COOH$, and smelling of acetic acid (probably from decomposition of the acetylsalicylic acid). It is intended chiefly as an antineuralgic and antirheumatic. Dose, 8 to 20 grains several times daily.

Quinine Acid Dibromosalicylate is known in the trade as *bromochinal*, which see.

Quinine Aesculinate.—See *æscoquinine.*

Quinine-Antipyrin.—See *chinopyrine.*

Quinine-Aspirin.—See *quinine acetylsalicylate.*

Quinine Beta-Naphtol-monosulphonate is referred to under its trade name, *quinaphtol.*

Quinine-Bismuth Sulphocyanate is described under its trade name, *crurin.*

Quinine Carbonic Ester.—See *euquinine.*

Quinine Carbonic Ester, Neutral, is better known as *aristochin;* see this title.

Quinine Dibromoguaiacolate is described under *guaiaquinol.*

Quinine Dibromosalicylate, Acid, is *bromochinal.*

Quinine Eosolate, $C_9H_7S_2O_{12}.(C_{20}H_{24}N_2O_2)_2$, is one of a series of sulpho acid salts of the aliphatic creosote esters introduced by Dr. G. Wendt. It combines the antipyretic properties of quinine with the disinfectant and alterative action of creosote, and is hence used chiefly in tuberculosis with fever. Dose, 5 to 15 grains.

Quinine Esculinate.—See *æsco-quinine.*

Quinine Glycerinophosphate, $C_3H_7O_3PO_3(C_{20}H_{24}N_2O_2)$, occurs as a white powder, sparingly soluble in water, more freely soluble in alcohol and containing 68 per cent. of quinine. It is used chiefly in malaria associated with nervous disturbances. Dose, 3 to 10 grains, usually in pills, three times a day. Liquid preparations of it do not keep well, but may be rendered more stable by the addition of a drop of chloroform per fluid ounce. It should not be prescribed with carbonates, phosphates or lead salts, lest decomposition ensue; and hot solvents should be avoided.

Quinine Glycyrrhizinate is a brown powder containing 25 per cent. of quinine, and only slightly bitter in taste. It is intended especially for children's use. Dose, about double that of quinine sulphate.

Quinine Guaiacol-bisulphonate.—See *guaiaquin.*

Quinine Lygosinate, $CO(CH{=}CHC_6H_4OH.C_{20}H_{24}N_2O_2)_2$, is a fine, yellow powder, with a bitter taste and hardly perceptible aromatic odor; sparingly soluble in water, readily soluble in alcohol or chloroform; quinine content 70.8 per cent. It is used as an antiseptic and styptic on wounds, as dusting-powder, gauze, court plaster, etc.

Quinine Salicylic Ester.—See *saloquinine.*

Quinine Sulphoguaiacolate is *sulphoguaiacin.*

Quinine-Urethane is a soluble compound of quinine obtained by heating together 2 parts of quinine hydrochlorate, 1 of urethane and 2 of water. It is intended especially for subcutaneous or intravenous injection.

Quinochloral.—See *chinoral.*

Quinoliv is "a palatable powder of pure sulphate of quinine with olive oil as a disguisant," used just like ordinary quinine sulphate.

Quinopyrin.—See *chinopyrine.*

Quinosol.—See *chinosol.*

R

Rachitol Tablets (Dr. Stöltzner) each contain 1/12 grain of dried suprarenal gland and are prescribed in rickets (rachitis), 1 to 3, according to the weight of the child, per day. Maximum dose, 6 or 7 tablets.

Radal is the fanciful name applied to a 20 per cent. solution of protargol. See the latter.

Radiophor is what Dr. Axmann has named a relatively cheap radio-active mass that is said to retain its radio-activity in sufficient strength indefinitely. The mass is directly applied to the skin, to tumors or in cavities; it is also used on sounds, catheters, etc. For cutaneous lesions an area of a square centimeter is treated with radiophor, ready spread, and this is kept in place by a bandage or rubber.

Ramkulin is a collective name for three "blood-purifying" preparations, the chief constituent of which is described by the manufacturer as "ramkulin extract, an organo-vegetable extract prepared from large, round-leaved spinach and carrots." There are marketed ramkulin *pills*, ramuculin *liquid* and ramculin *cascarinated*.

Ramogen (Biedert) is a nutritive said to contain 1 part of albumin, 2 of fat, 4 of sugar, and 1/5 of salts. It is not the same as Biedert's cream mixture.

Reclus' Ointment consists of iodoform (1), salol (2), boric acid (5), antipyrin (5) and vaselin (40).

Remarcol is a brand name for *sodium fluoride*.

Renaden is a lactose trituration of dried extract of pig's kidneys, 1 part representing 2 parts of the fresh organ. It is prescribed in Bright's disease and uremia. Dose, 90 to 120 grains per day.

Renaglandin is described as a "concentrated solution of the suprarenal gland." It is used as a

hemostatic, in the same classes of cases as adrenalin.

Renoform is a coryza snuff consisting of a mixture of powdered boric acid and milk sugar with 2 per cent. of dried extract of suprarenal gland.

Resaldol, $C_{20}H_{14}O_5.(CH_3CO)_2$, is an acetyl derivative of the condensation product of chlormethylsalicylic aldehyde and resorcin (saloform). It occurs as a very light, yellowish-brown powder of very astringent taste, insoluble in water, but soluble in alkali solutions. It is intended as an intestinal antiseptic, especially in tuberculosis of the intestines. Dose, 45 to 75 grains per day, in wafers or as enemas.

Resalgin is the name applied to *antipyrin resorcylate*, $(C_{11}H_{12}N_2O)_2.C_7H_6O_4$, which chemical occurs as colorless crystals freely soluble in water, and intended as an antiseptic.

Resineon (*ethereal pitch oil*) is the distillation product of crude tar oil distilling at 148° C. It has been recommended in a 1:8 ointment in chronic skin rashes.

Resol is a crude disinfectant obtained by saponifying wood tar with caustic potash in presence of wood alcohol.

Resopyrin (*resorcin-antipyrin resorcinopyrin*) results from mixing solutions of resorcin and antipyrin. Colorless crystals soluble in alcohol, insoluble in water. It is an antiseptic and an antipyretic. Dose, 10 to 20 grains.

Resorbin, as its name implies, is a readily absorbed ointment-base, consisting of oil of sweet almonds, soap, white wax, lanolin, and a solution of gelatin. It is used as a vehicle in the endermic administration of mercury, iodine and other drugs. Marketed also as *resorcin-mercury*, 33⅓ per cent. and 50 per cent.

Resorcin-Antipyrin.—See *resopyrin*.

Resorcin-Camphor is obtained by melting together equal parts of resorcin and camphor, and forms a colorless oily fluid recommended for use in pruritus and parasitic skin diseases (especially for lice).

Resorcin-Eucalyptol is a white powder, easily soluble in alcohol, sparingly soluble in water. Its solutions are used by inhalation in phthisis, fetid bronchitis and the like, and in ointment it is used on wounds, skin lesions, etc.

Resorcin - Hexamethylenetetramine is described under *hetralin*.

Resorcin Monoacetate.—See *euresol*.

Resorcinol (not simple resorcin, also called resorcinol, particularly in England) is obtained by melting together equal parts of resorcin and iodoform. It occurs as a brown powder of iodine odor and iodoform taste, and was introduced as a vulnerary and dermic; to be applied as a 20 per cent. dusting-powder or as 6 to 12 per cent. ointments. Keep from light.

Resorcin-Salol, obtained by melting resorcin and salol together, was introduced some years ago as an intestinal antiseptic, but never met with much favor because offering no advantages over a simple mixture of its ingredients. Dose, 3 to 10 grains.

Retinol (*rosinol, rosin oil*) is a thick, yellow oil obtained by the distillation of rosin; specific gravity, 0.900; soluble in oils, ether, and alcohol. It is used as an ointment or liniment in skin diseases; technically as a solvent of phosphorus, salol, camphor, gums, etc. It has also been suggested as an excipient for phosphorus.

Rexotan (*methylene-tannin-urea*) is a condensation product of tannin, urea, and formaldehyde, to which the formula $C_{19}H_{14}N_2O_{10}$ has been assigned. It occurs as a yellowish-brown, odorless, and tasteless powder; insoluble in the usual solvents and acid liquids, decomposed by alkalies with the liberation of formaldehyde. It is prescribed as an intestinal astringent and disinfectant. See caution under *formaldehyde*.

Rheol ovules consist of a preparation of yeast, and are used in leucorrhea. They are coated with paraffin, in order to protect the yeast against atmospheric influences.

Rheumacilate is a brand of synthetic *methyl salicylate*, exploited as a topical remedy in rheu-

matism, 30 to 60 minims being rubbed in at a time.

Rheuman is a medicated paper employed in rheumatism and neuralgia.

Rheumaphen (*acetyl-salicylic acid methyl ester*) is intended for use in cases of rheumatism that do not bear acetyl-salicylic acid (aspirin) well on account of hyperacidity of the stomach. Dose, the same as of aspirin. Marketed also as tablets.

Rheumasan is a superfatted salicylic acid soap containing 10 per cent. of free salicylic acid. It is used by inunction in rheumatic affections, sciatica, etc., 2 to 4 drams per dose, usually in the evening.

Rheumasol (*salicylated petrovasol*) consists of 80 per cent. of vasol and 10 per cent. each of petrosulfol and salicylic acid. It is used as a paint or inunction in swollen glands, lumbago, rheumatism, etc.

Rheumatin is the name applied in Germany—and up to two years ago also here—to *saloquinine salicylate;* see this title.

Rhinalgin suppositories consist of alumnol, menthol, valerian oil, and cacao butter. They are used in coryza.

Rhinosclerin (Pawlowski) is a hydro-alcoholic extract of the bacilli that cause the nasal affection known as rhinoscleroma, and is intended as a remedy for the latter.

Rhodallin is a synonym of *thiosinamine.*

Rhomnogyre is the mercury salt of rhomnol, hence *mercury nucleinate* and thus analogous to *mercurol,* which see for properties, uses, etc.

Rhomnol is a French *nuclein* derived from the thymus gland, and marketed as pills and granules. For properties and uses, see *nuclein.*

Rhomnoline is a nervine and dietetic, the active ingredient of which is the calcium salt of rhomnol (i. e. calcium nucleinate).

Ringolin is a paste consisting of equal parts of cod liver oil and glycerin in combination with 0.3 per cent. of zinc oxide and balsam peru. It is used in eruptions and intertrigo of infants; also

as a vehicle, because readily miscible with tar, oil of cade, salicylic acid, etc.

Robol is described as a digestive powder and tonic at the same time. Its composition is unknown.

Roborat is an albuminous nutrient occurring as a whitish, odorless, and nearly tasteless powder. Dose, daily 2 to 4 tablespoonfuls mixed with food.

Roborin is a black, granular, nearly tasteless, odorless powder, prepared from blood and recommended for anemia, scrofula and general debility.

Robuston is a dried extract of malt and milk, that keeps well and is recommended as a palatable nutritive.

Rodagen is a 50 per cent. lactose trituration of a substance obtained from the milk of thyroidectomied goats and used as a remedy in Basedow's disease (exophthalmic goiter). Dose, 75 to 150 grains per day.

Ronozol is brand name for a series of salts identical with the older group of preparations designated as *sozoiodole*. See the latter heading.

Rubidium salts have come into some vogue in recent years as substitutes for the corresponding potassium salts, the claim being made that they do not affect the stomach or heart deleteriously. Chief among them are the following: *Rubidium bromide*, RbBr, colorless crystals or a white powder, soluble in water. Dose, 5 to 15 grains. *Rubidium iodide*, RbI, white crystals freely soluble in water. Dose, 2 to 10 grains. *Rubidium and ammonium bromide*, $RbBr.3NH_4Br$, a yellowish-white powder soluble in water. Dose in epilepsy, 60 to 100 grains per day.

Rubrol is a solution of thymol and boric acid in a coal tar derivative of unknown composition. It is employed in gonorrhea.

Rufigallic Acid Tetramethyl Ester.—See *erodin*.

Russol is a gout and rheumatism liniment containing methyl salicylate, capsicin, colchicum, chloroform and mustard spirit.

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Saccharin will be but briefly referred to, only such statements being made as may not be generally known to pharmacists and physicians. It is chemically definable as *benzoyl-sulphonic imide, ortho-sulphamine-benzoic anhydride, benzoic-acid sulphinide;* and is known in the trade also as *agucarina, garantose, gluside, neosaccharin, saccharinol, saccharinose, saccharol, saxine, sycose, toluol sugar, zuckerin,* etc. The refined or regular saccharin is an acid, sparingly soluble in water (1:400), but dissolving in 30 parts of alcohol. *Soluble saccharin* (*crystallose,* etc.) is the sodium salt of saccharin pure, containing about 90 per cent. of the latter. While its uses are chiefly as a sweetening agent, it is occasionally prescribed as an acidifier of the urine in cystitis, as it is eliminated from the system unchanged. Dose, 2 to 5 grains in solution.

Saccharinol, Saccharinose, and **Saccharol** are synonyms of *saccharin.*

Saccharosolvol is an organo-therapeutic preparation obtained by the action of salicylic acid upon the diastatic ferment of pancreatic juice and spinal marrow of cattle. It is employed in diabetes. Dose, a teaspoonful three times a day.

Sagradin is a 20 per cent. solution of bitterless extract of cascara, to which 2 per cent. of peppermint spirit has been added. Dose, ½ to 1 teaspoonful.

Sagradol is a bitterless extract of cascara sagrada with 2 per cent. of quinine.

Sal Anæstheticum Schleich is used for "infiltration anesthesia" as introduced by Dr. Schleich of Berlin. It is marketed as tablets, in three strengths: *strong,* containing cocaine hydrochlorate 0.2 gram, morphine hydrochlorate 0.025 gram, and sodium chloride 0.2 gram; *normal,* containing cocaine hydrochlorate 0.1 gram, morphine hydrochlorate 0.025 gram, and sodium

chloride 0.2 gram; and *weak*, containing cocaine hydrochlorate 0.01 gram, morphine hydrochlorate 0.005 gram, and sodium chloride 0.2 gram. For use, 1 tablet is dissolved in 100 c.c. of sterilized water.

Sal-Ethyl is a trade name given to pure *ethyl salicylate* or *salicylic ether*, recently recommended as a substitute for methyl salicylate and wintergreen oil internally in rheumatism, tonsillitis, neuralgia, etc. It occurs as an almost colorless liquid, specific gravity 1.184, and soluble in alcohol and oils. Dose, 5 to 15 minims several times daily, in capsules or globules. Marketed as 5-minim globules.

Sal Gregory is a mixture of morphine hydrochlorate (97½ per cent.) and codeine hydrochlorate (2½ per cent.); a white powder freely soluble in water and employed like morphine hydrochlorate and in about the same doses.

Sal Physiologicum Poehl is a white powder, readily soluble in water, and containing all the active constituents of blood serum. A 1.5 per cent. solution corresponds in saline content to blood serum. It is used for transfusions, also in irrigations and sprays for catarrhal inflammations (coryza, cystitis, etc.).

Sal Purgans is what *artificial Carlsbad salt* (sal Carolinum factitium) is called in Austria.

Sal Renaline is a laxative salt containing as a base "the active salts contained in European bitter waters, sodium phosphate, lithium phosphate and renaline" (hexamethlenetetramine). It is used mainly in gout, rheumatism and Bright's disease. See caution under *formaldehyde*.

Salacetin is defined as "a combination, with heat, of salicylic and glacial acetic acids with phenylamine" (anilin)—perhaps the same as salifebrin, which is obtained by melting salicylic acid and acetanilid together. It is an antirheumatic and analgesic, used principally as an ingredient of "sal-codeia" (salacetin 5 grains, codeine ¼ grain).

Salacetol (*salicylacetol; salantol; acetol-sali-*

cylic-acid ester), $C_6H_4.OH.COO.CH_2.CO.CH_3$, occurs as white to faintly reddish, fluffy, bitter needles, readily soluble in alcohol, chloroform, and ether, but sparingly soluble in water. It is prescribed as an intestinal antiseptic and antirheumatic Dose, 15 to 45 grains, often with 1 ounce of castor oil.

Salactol is described as a solution of sodium salicylate and sodium lactate in 1 per cent. solution of hydrogen peroxide. It is used chiefly as a paint in diphtheria; also internally.

Salamid is an amide derivative of salicylic acid, closely resembling the latter in therapeutic properties, but tasteless, and more soluble, and more powerful. Dose 10 to 15 grains per day.

Salantol.—See *salacetol.*

Salazolon is a synonym of *salipyrine.*

Salbromalid is *antinervin.*

Salen is a mixture of the methyl and ethyl acid esters of salicylic acid; an odorless, oily fluid used as an inunction in rheumatism.

Salhypnon is the name applied to *benzoyl-methyl-salicylic acid ester*, which forms colorless needles, slightly soluble in alcohol and ether, and insoluble in water. Its action is analogous to that of salacetol. Dose, 5 to 15 grains.

Salibromine is, chemically, *salicylic acid methyl ester*, and is employed as an antipyretic and antirheumatic in doses of 8 grains four to ten times daily.

Salicol is a French cosmetic antiseptic, consisting of a solution of salicylic acid and wintergreen oil in methyl alcohol and water. The methyl alcohol, it is now well known, is highly poisonous, and causes blindness, and it may injure the eyes even by its vapor.

Salicyl-alpha-methyl-phenyl-hydrazon is the chemical designation of *agathin.*

Salicylamide, $C_6H_4.(OH)CONH_2$, is obtained by causing dry ammonia to act upon methyl salicylate. It occurs as colorless or yellowish, tasteless plates, soluble in alcohol, ether or chloroform, only sparingly soluble in water. It is used mainly as an analgesic, in rheumatism, gout, etc.

Dose, 2½ to 5 grains every 3 or 4 hours, in solution. Maximum daily dose, 15 grains.

Salicylanilid is a synonym of *salifebrin*.

Salicyl-formaldehyde.—See *formasal*.

Salicylic Acid Acetyl-para-amidophenol Ester.—See *salophen*.

Salicylic Acid Amyl Ester is a synonym of *amyl salicylate;* see this title.

Salicylic Acid Beta-Naphtol Ester is referred to under *betol*.

Salicylic Acid Glycerin Ester.—See *glycosal*.

Salicylic Acid Methoxy-methyl Ester is a chemical designation for the article marketed as *mesotan*.

Salicylic Acid Methyl Ester is described under *salithymol*.

Salicylic Acid Para-chlorphenyl Ester.—See *chlorsalol*.

Salicylic-acid-para-phenetetid is better known by the trade name, *phenesol*.

Salicylic Acid Phenyl Ester is *salol*.

Salicylos is a granular effervescent salt, each dessertspoonful of which contains 5 grains each of strontium and ammonium salicylates, with 2 grains of lithium bitartrate, and an excess of non-irritating alkaline salt. It is prescribed in rheumatism, gout, neuralgia, lumbago, etc. Dose, 1 to 2 dessertspoonfuls every 2 hours or so, in half a glass of water, taken during effervescence. Keep securely stoppered and in a dry place.

Salicyl-para-phenetidin is described under its trade name, *malakin*.

Salicyl-phenetidin is given as a synonym of *saliphen*.

Salicyl-quinine.—See *saloquinine*.

Salicyl-resorcin-ketone (*trioxyphenone*), $C_{13}H_{10}O_4$, occurs as white or reddish-white leaflets, slightly soluble in water and alcohol, and used as an intestinal antiseptic and antirheumatic, in doses of 5 to 15 grains, 3 or 4 times daily. Maximum dose, 15 grains, or 60 grains per day.

Salifebrin (*salicylanilid*) is advertised as a condensation product of salicylic acid and acetanilid (antifebrin), but is said to be probably a

fused mixture of the two components. It is prescribed as an anodyne and antipyretic. Dose, 5 to 15 grains.

Saliformin (*formin salicylate; hexamethylenetetramine salicylate*), $C_6H_{12}N_4.C_6H_4.OH.COOH$, occurs as a white powder of acidulous taste, and readily soluble in water and alcohol. It is prescribed as a genito-urinary disinfectant and gout remedy. Dose, 5 to 10 grains 3 or 4 times daily, in water. See caution under *formaldehyde*.

Saligallol (*pyrogallol diacetate*) is a resinous solid marketed in 33⅓ per cent. solution in acetone, which is miscible with acetone and chloroform. It is a skin varnish of mild pyrogallol effect, but used chiefly as a vehicle for other dermics, such as eugallol and eurobin. Applied in 2 to 15 per cent. solutions.

Saligenin.—See *diathesin*.

Saligenin Tannate is described under *antiarthrin*.

Salinaphtol is a synonym of *betol*, which see.

Saliodin is said to be an "iodated aceto-salicylate, with adjuvants; a combination of salicylic acid, iodine, acetic acid, aconite, bryonia, colchicum, capsicum and gaultheria." It occurs as a grayish-pink powder, soluble in 3 parts of water. It is used in rheumatism, gout, syphilis, and other diseases in which salicylic acid and iodine are indicated. Dose, 10 to 30 grains.

Saliphen (not salophen), also designated as *saliphenin* and *salicyl-phenetidin*, occurs as colorless crystals readily soluble in alcohol and almost insoluble in water. It is occasionally prescribed as a mild antipyretic and analgesic. Dose, 8 to 20 grains.

Saliphenol.—See *phenosalyl*.

Salipin is an ointment containing 10 per cent. of salicylic acid and 10 per cent. of ethereal oils, used as an inunction in rheumatic affections.

Salipyrine (*antipyrin salicylate; salazolon; salipyrazolon*), $C_{11}H_{12}N_2O.C_7H_6O_3$, is a white, odorless powder, of sweetish taste with bitter after-taste; soluble in 250 parts of water, readily in alcohol, chloroform and ether. It contains

57.7 per cent. of antipyrin and 42.3 per cent. of salicylic acid. It is an analgesic and antirheumatic prescribed largely in grip, neuralgia and rheumatic affections. Dose, 8 to 30 grains in cachets or capsules, or as mixture rubbed up with a little glycerin and flavored with raspberry syrup.

Salit is the terse name given to *borneol salicylic acid ester*, $C_{10}H_{17}O.COC_6H_4OH$. The article occurs as an oily liquid miscible in all proportions with alcohol, ether and fatty oils, slightly soluble in glycerin, and insoluble in water; alkalies decompose it into salicylic acid and borneol. It is prescribed as a topical antirheumatic and anodyne, usually diluted with an equal part of olive oil, which mixture is marketed as "*salitum solutum*." Dose, as a paint or by inunction, 20 to 40 minims twice daily.

Salitannol is a condensation product of salicylic and tannic acids, of the formula $C_{14}H_{10}O_7$, and occurring as a white powder insoluble in the usual solvents, but soluble in caustic alkalies. It combines the antiseptic action of salicylic acid with the astringent action of tannin. It is used on wounds and in intestinal catarrh. Dose, 15 grains three or four times daily.

Salithymol (*thymyl salicylate; salicylic acid thymyl ester*) results from the action of phosphorus oxychloride or trichloride upon sodium thymolate and sodium salicylate. It forms a white, sweetish powder, almost insoluble in water, but readily soluble in alcohol and ether. It is employed as an intestinal antiseptic in the same doses as salol.

Salochinin.—See *saloquinine*.

Salocoll (*phenocoll salicylate*), $C_{17}H_{20}N_2O_4$, occurs as white needles of a sweetish taste and soluble in hot water. It is prescribed as an antipyretic and anodyne in fevers, rheumatism, neuralgias, etc. Dose, 10 to 20 grains several times daily.

Salocreol is defined as a compound of the various phenols of beechwood creasote with salicylic acid, forming esters; so-called *creosote salicylic*

acid ester. It occurs as a brown, oily, nearly odorless, neutral liquid, readily soluble in olive oil, alcohol, ether and chloroform, insoluble in water, and saponified by alkalies, alcohol or glycerin on prolonged contact. It is used topically in facial erysipelas, chronic rheumatism, adenitis, lumbago, etc., as a paint or by inunction, in quantities of 45 to 180 minims one or more times daily, up to 1 fluid ounce per day. The skin should be perfectly dry before applying the salocreol, else an emulsion will be formed that prevents the penetration of the drug.

Saloform is described as a chemical compound of hexamethylenetetramine (formin, urotropin, etc.), salicylic acid and lithium. It is used as a uric acid solvent and urinary disinfectant, in gout, cystitis, etc. Dose, 10 grains four times daily. Marketed also as 5-grain tablets and elixir (teaspoonful per dose). See caution under *formaldehyde*.

Salol-Camphor (*camphorated salol*) is a mixture of 3 parts of salol with 1 part of camphor; a yellowish, oily liquid, soluble in alcohol, ether, chloroform and oils. It is used almost wholly externally, chiefly as a local anesthetic in toothache, neuralgia, etc., but also in certain skin diseases and otorrhea. Dose, 3 to 10 grains (in typhoid fever, etc.). It should be kept well stoppered.

Salophen (*salicylic acid acetyl-para-amidophenol ester; acetyl-para-amido-salol; acet-amido-salol; acetyl-para-amido-phenyl salicylate*), $C_6H_4.OH.COO.C_6H_4NH.COCH_3$, is obtained from salicylic acid nitrophenylic ester by reduction and acetylization. It forms a white, odorless, tasteless powder, practically insoluble in water, but readily soluble in alcohol, chloroform and ether; it contains 51 per cent. of salicylic acid. Alkalies decompose it, and should hence not be dispensed with it. It is used as an anodyne, antipyretic, and antiseptic, in rheumatism, grip, typhoid fever, etc. Dose, 10 to 15 grains three or four times daily. Maximum dose, 20 grains.

Saloquinine (*salochinin; salicyl-quinine; qui-*

nine salicylic acid ester) has the formula C_6H_4.OH.CO.O.$C_{20}H_{22}N_2O$, and occurs as a whitish, tasteless powder, insoluble in water, readily soluble in chloroform and hot alcohol, sparingly soluble in ether and cold alcohol. It is an analgesic, antiperiodic, and antipyretic, analogous to quinine. Dose, 15 to 30 grains, one to three times daily, as powders usually; in fever, it is often followed by a little hydrochloric acid and water.

Saloquinine Salicylate, known abroad also as *rheumatin*, occurs in the form of white, tasteless needles, sparingly soluble in water. It is recommended as an antirheumatic and antineuralgic, in doses of 15 to 20 grains three times daily.

Saloricol is the name given to soft capsules containing 5 grains of salol and 5 grains of castor oil.

Salosantal (*oleum salosantali*) is a 33⅓ per cent. solution of salol in oil of sandalwood and a little peppermint oil. It is used internally in gonorrhea. Dose, 5 to 15 minims, in capsules or on sugar. Marketed also in 0.3 and 0.5 gram capsules.

Salozon is a bath salt, advertised as being disinfectant and stimulating to the skin.

Salubrin is a liquid antiseptic and astringent composed of acetic acid (2), alcohol (50), acetic ether (25), and water (23). Dose, a teaspoonful in water, four times a day. Applied externally pure or in 1 in 10 solution.

Salubrol is chemically *methylene-tetrabromdiantipyrin*, $C_{23}H_{24}Br_4N_4O_2$. It occurs as a permanent, almost odorless powder, soluble in alcohol. It is employed as a wound antiseptic like iodoform. See caution under *formaldehyde*.

Salufer is a name sometimes applied to *sodium silicofluoride*.

Salumin is described under *aluminium salicylate*. *Soluble salumin* is *aluminium and ammonium salicylate*.

Salutine is described as "a combination of 'carbonyphenylacetates,' from oil of betula lenta with the active principles of parilinia sorbilis and theobroma cacao." It occurs as colorless

crystals, of slightly bitter-acidulous taste, practically insoluble in water and dilute acids, but soluble in alcohol and alkaline liquids. It is intended as a succedaneum for sodium salicylate. Dose, 5 to 20 grains three or four times a day, before meals. Marketed also as 5-grain tablets.

Salvin is a creamy emulsion of a compound of silica and wax, which when applied to the skin is said to penetrate rapidly and form a thin coating on the epidermis that prevents infection during operations, examinations, etc. It is used also in intertrigo, eczema, bed-sores, etc.

Sanal (Müller) is a reddish-brown ointment consisting of litharge, red bole, calamine, balsam of peru, yellow wax, and vaselin. It is employed in rheumatism, gout, etc.

Sanatogen is a glycerinophosphated sodium-casein, readily soluble in water, and recommended as a food and a nerve nutrient. It consists of 5 per cent. of sodium glycerinophosphate and 95 per cent. of casein. Dose, 1 to 1½ ozs. daily, in warm milk, etc.

Sanatol (not sanitol, a preparation used as a mouthwash) is a general disinfectant occurring as a dark brownish-black fluid smelling of crude carbolic acid and sulphurous acid. Its solutions in water are turbid.

Sanatolyn is an Austrian crude disinfectant similar to sanatol.

Sangalbumin is an acid, peptonized blood-albumin, soluble in water, and claimed to be identical with the better-known *haemalbumin*.

Sangan is a name applied *haeman*.

Sangogen Capsules are said to contain iron, arsenic, manganese, and strychnine—"all in organic form, all predigested." These are prescribed as a blood and nerve tonic. Dose, 1 or 2 after each meal.

Sangostol (*liquor calcii iodo-ferrati*) is an iron and lime preparation intended for use chiefly for rachitic and scrofulous children. Dose (children), ½ to 1 teaspoonful after meals.

Sanguiform is a liquid hematinic obtained from fresh ox-blood. It is advertised as contain-

ing in each fluid ounce "2½ grains of natural organic iron, together with all the albuminous and saline constituents of 1¼ ounces of normal healthy blood." Dose, 1 to 2 teaspoonfuls, in water.

Sanguinal, Krewel, is a hematinic prepared from blood, and consists, according to the manufacturers, of pure crystalline hemoglobin 10 per cent., natural salts of the blood 46 per cent., and freshly prepared peptonized muscle albumin 44 per cent., with a trace of manganese. Marketed only as pills, each representing 5 grams of blood; also in pills combined with guaiacol carbonate; with creosote; with rhubarb extract; with hetol; with quinine, etc. Dose, 2 to 5 pills three times a day, before meals.

Sanguino Tablets are stated to contain all the iron salts, albumins, fats and carbohydrates existing in the animal organism, in the form in which they occur in the blood, but in 5 times the proportion; apparently simply evaporated blood. Dose, 2 to 4 tablets before meals.

Sanguinoform is a reddish-yellow powder, said to be prepared from "embryonic blood-forming organs" (bone-marrow, spleen, etc.), with the addition of cacao and peppermint oil. It is employed as a "blood-builder" and invigorator in chlorosis, rickets, convalescence, etc. Dose, ½ teaspoonful three times a day.

Sanguinol is the name of two entirely different preparations. The St. Petersburg article is a dark-brown, odorless powder, soluble in water, obtained from calves' blood, and used as a hematinic in doses of 5 to 15 grains. The American sanguinol is a liquid petrolatum combined with sanguinarine and antiseptics, prepared according to a formula of the Brooklyn Throat Hospital, and used as a spray in diseases of the nose and larynx.

Sano is barley flour dextrinized by means of heat; a food containing in 100 parts, according to Aufrecht, 12 of proteids, 65 of starch, 4 of soluble carbohydrates, 1½ of fat, and 14 of water.

Sanoform (*diiodo-salicylic acid methyl ether*)

results from the action of iodine upon wintergreen oil. It forms a white, odorless, and tasteless powder, soluble in ether, hot alcohol, and vaselin oil; and contains 62.7 per cent. of iodine. It was recommended a few years ago as a substitute for iodoform in surgery.

Sanogen is a disinfectant, essentially a saponification product of different tars, combined with calcium chloride, magnesium chloride and sodium chloride.

Sanosal is an effervescent laxative salt, said to contain besides taste-corrigents the ingredients of the Hungarian bitter waters.

Sanose is a food for the sick and convalescent, containing 80 per cent. of casein and 20 per cent. of albuminose. It occurs as a white, odorless and tasteless powder, that readily forms an emulsion when stirred with water. It seems to have been withdrawn from the American market.

Sanosin, later called also *thieukalyptol,* was heralded in 1903 as a cure for consumption, Drs. Danelius and Sommerfeld being the introducers. It consists of the ethereal oil of eucalyptus maculata citriodorus, powdered leaves of the same plant, flowers of sulphur and powdered charcoal. The powder is heated on a plate in a special apparatus that goes with the remedy. It has not been referred to in medical literature during the past year, and seems to have fallen into disuse.

Sanatalol.—See *arhéol.*

Santalol-Formaldehyde is a condensation product of the two components, intended as a urinary disinfectant in nephritis and cystitis. See caution under *formaldehyde.*

Santalsol is advertised as "a water-soluble extract of sandalwood oil (?), copaiba balsam, cubeb oil, peru balsam, buchu, and pimenta oil; each fluid dram represents 4 minims of oil of sandalwood, 2 minims of oil of cubeb, 2 minims of copaiba, 1 minim of pimenta oil, and 20 minims of fluid extract of buchu." It is prescribed in gonorrhea, cystitis, etc. Dose, 1 to 2 fluid drams.

Santheose is a French trade name for *theobromine.* A "santhéose phosphatée" (sodium

phosphate 1, theobromine 2) and a "santhéose lithinée" (lithium carbonate 1, theobromine 2) are also marketed.

Santoninoxim, $C_{15}H_{19}O_2(NOH)$, is a derivative of santonin obtained by the action of hydroxylamine hydrochlorate upon it in presence of sodium hydroxide; a white powder, sparingly soluble in water, freely soluble in alcohol and ether. It is used as an anthelmintic, chiefly in children. Dose, ¾ to 2 grains, in 2 portions taken 1 to 2 hours apart; adult dose, 5 grains, in wafers or in water, and repeated for 2 or 3 days. It should be protected against light.

Sanus is a 36 per cent. solution of formaldehyde gas. See caution under *formaldehyde*.

Saparaform is a paraform (para-formaldehyde or trioxymethylene) soap, obtained by dissolving paraform to the extent of 3 to 5 per cent. in a liquid potash soap. It is a clear, yellow liquid, of faint formaldehyde odor, rapidly evolving formaldehye gas when diluted. It is used for disinfecting the hands, skin, etc. See caution under *formaldehyde*.

Sapocarbol OO, O, and I are soap solutions containing crude cresol. Sapocarbol II is a mixture of resin soap with tar oil rich in cresols. They are used as general disinfectants and deodorants.

Sapo cinereus is a potash soap made from lard and impregnated with mercury. It is intended as a readily penetrating substitute for mercurial ointment.

Sapocresol is claimed to be identical with *lysol*.

Sapocresotin is said to be similar to *creolin*.

Sapodermin is a superfatted soap containing mercury in the form of caseinate. It has a greenish-slate color and a faint and not unpleasant odor. It is used in parasitic and syphilitic skin diseases. Two strengths are furnished, ⅕ and 1 per cent. of mercury respectively.

Sapoform is a formaldehyde soap solution brought forward as a disinfectant. See caution under *formaldehyde*.

Sapokarbolin is saponified coal-tar creosote oils; a product analogous to if not identical with *creolin*. (See the latter.)

Sapol is a solid soap spirit invented by Dr. R. Falck, of Breslau (Germany), intended especially for disinfecting the surgeon's hands, but also as a vehicle for medicaments used by inunction. It consists essentially of alcohol (70 per cent.), soda soap (15 per cent.) and water (15 per cent.). It does not melt in the hand.

Sapolan (*naphtasapol; naphta saponata*) is a blackish-brown ointment consisting of lanolin, soap and a substance obtained by fractional distillation of crude naphtha; a product analogous to and intended for the same purposes as naftalan.

Sapolentum Hydrargyri is a superfatted potash soap containing 33⅓ per cent. of mercury. It is soluble in water, and hence is considered better than gray ointment in the inunction treatment of syphilis. It is marketed in capsules, the contents of one of which constitute the ordinary application. Similar products are Unna's *sapo hydrargyri cinereus*, and Schuster's *sapo mercurialis*.

Sapo Natrii Peroxydati Unna is used in acne and pustular rosacea as an emollient and decolorizing remedy. The base consists of 3 parts of liquid paraffin and 7 of white soap; and the amount of sodium peroxide added varies according to the case from 2 to 20 per cent.

Sapophenol is an analogue of *lysol*, made by a Belgian firm.

Sapophtalum (*sapo ophthalmicus neutrale*) *is* what P.v.d. Wielen calls a cocoanut oil soap base intended for medicinal purposes.

Saposilic is a new soap for the mechanical disinfection of the hands and field of operation, and for use in acne. It is milder than marble dust soap, and does not scratch. The characteristic constitutent appears to be silica.

Sapozol is a saponified cresol containing approximately 50 per cent. of cresol and thus probably identical with *liquor cresolis compositus* U.

S. P. 1900 and *liquor cresoli saponatus* of the German Pharmacopœia. It is miscible with water, alcohol or glycerin, and is used in 1 to 3 per cent. solution as a surgical and gynecological disinfectant.

Saprol is a mixture of crude cresol and hydrocarbons of high boiling-point, intended as a general disinfectant.

Sarcogen Pills contain the extracts of cinchona, wormwood, coca, and saw palmetto, and exsiccated blood and reduced iron. They are prescribed in chlorosis, anemia, etc. Dose, 2 after meals.

Savonal is an ointment soap, a solid olive oil and potash soap spirit, that mixes clearly with water, glycerin, and alcohol, and readily takes up ichthyol, sulphur, resorcin, tar, and other dermic remedies. A savonal combined with 20 per cent. of oleum rusci, one containing 20 per cent. of lianthral, and one combined with 5 per cent. of sulphur ("thiosavonal") are on the market.

Scabiol is a reddish-brown, thin, odorless liquid, consisting essentially of storax (20 per cent.), soap and alcohol. As the name indicates it is employed in scabies.

Scavaline Pills are bluish sugar-coated laxative pills containing phenolphtalein, extract of cascara sagrada, and compound extract of rhubarb, each 0.05 gram.

Schistiol is another of the numerous articles regarded as identical with *ichthyol*.

Scillipicrin is a bitter principle of squill; a yellowish to reddish-yellow, hygroscopic, granular mass, soluble in water and employed as a diuretic hypodermically. Dose, ⅛ to 1 grain once daily.

Scillitin is a bitter principle of squill, occurring as a blackish-brown mass or powder administered as a diuretic in doses of ⅛ to ½ grain.

Scillitoxin (*scillain*) is a glucoside obtained from squill: a yellowish-brown powder, soluble in alcohol, and prescribed as a diuretic in doses of 1/60 to 1 20 grain several times daily, in pills. Maximum daily dose, ⅝ grain.

Scoparin, $C_{20}H_{20}O_{10}$, is a bitter principle derived from scoparius, a yellowish, odorless, tasteless powder, soluble in alcohol, hot water and dilute alkalies. It is used in dropsy. Dose, per os, 5 to 10 grains; hypodermically, ½ to 1 grain, dissolved in water containing a trace of ammonia or in glycerin and water.

Scopolamine, the alkaloid of scopolia atropoides and other varieties of scopolia, about which there formerly was considerable controversy regarding its relation to hysocine, is now conceded to be identical chemically, physiologically and clinically, with *hyoscine.*

Sedatin or *sedatine* is a synonym of *antipyrin;* and of *valeryl-phenetidin.* (The drug in the latter instance is used as a nerve-sedative and antineuralgic in doses of 4 to 10 grains.)

Segarin is a disinfectant pastille of unknown composition, used in place of creolin, etc.

Selenin is an antitubercular serum prepared by Prof. E. Klebs from cultures of diplococcus semilunaris, a germ present in lymphatic glands, skin, and organs affected with tuberculosis. Selenin A is obtained by precipitation with alcohol, selenin B by precipitation with sodium-bismuth iodide, and selenin H by precipitation with hydrogen peroxide. They are used locally and internally. Dose, 1 c.c.

Sennine is a white, odorless powder, soluble in water, stated to be essentially a mixture of salicylic acid (2) and boric acid (3).

Senval is an antidiabetic that does not, it is claimed, necessitate a rigid diet. It consists of (1) a compound fluid extract of senecio, valerian, wormseed and castoreum, (2) a powder containing alkaline salts and sponge charcoal. The action of the powder is disinfectant and antacid antizymotic.

Sepdelen is a palatable syrupy fluid containing ½ per cent. of ferrous iodide, and used in scrofula, chlorosis, rickets, etc. Dose, for adults, 1 to 2 tablespoonfuls after meals.

Septicidin is a serum used in swine plague

and chicken cholera. Septicidin A is chiefly for fowls; septicidin B for swine.

Septoforma is a disinfectant, deodorant and antiparasitic, consisting of "the condensation products of formaldehyde with terpene, naphtalin and phenol groups," perfumed with melissa and geranium oils. It is soluble in water and alcohol, its solution foaming when shaken. Applied in 2 to 5 per cent. solutions. Marketed also as a 15 per cent. soap. See caution under *formaldehyde*.

Sequardine is the name by which Brown-Séquard's testicular fluid is known in France. As is known, the article is used in impotence, cachexias, debility, etc. Dose, subcutaneously, 1 to 3 c.c.

Seraphthin is a prophylactic remedy of undivulged composition for foot-and-mouth disease of cattle.

Serthymin (Dr. Roth) is an extract of thyme containing 20 per cent. of sugar and employed in whooping-cough, laryngeal catarrh, etc. Dose, a teaspoonful three to six times daily, in sweetened water.

Serum, Bichloride (Chéron), is a solution of mercuric chloride 1, sodium chloride 4, carbolic acid 4, and sterilized distilled water 400 parts. It is used subcutaneously in syphilis, 20 c.c. a week.

Serum, Blondel's, also known as *lactoserum*, is obtained by coagulating milk with acid, neutralizing the filtrate with soda and passing it through a porcelain filter, and impregnating with carbonic acid. It is used subcutaneously in diseases dependent upon arterial sclerosis. Dose, 10 c.c. twice daily.

Serums or *antitoxins* are modern remedial agents based on the proposition that each toxin causative of a certain disease gives rise to a distinct antitoxin that is curative of the affection. Those most in vogue are the antidiphtheritic (described under antitoxin, diphtheria), antistreptococcic or streptolytic, antituberculous, antitetanic, antivenomous, and thyroid. Besides these,

however, *anticarbuncle*, *anticholera*, *antidiabetic*, *antifatigue*, *antipneumonic*, and *antistaphylococcic* serums are made. *Antistreptococcic* or *streptolytic* serum is used in scarlet fever, erysipelas, puerperal fever, and other diseases caused by infection with streptococci; dose, 10 to 40 c.c. hypodermically. *Antituberculous* serum was first recommended by Prof. Maragliano; dose, 1 to 4 c.c. every other day to once weekly. *Antitetanic* serum is marketed in liquid and dry forms, the latter being several times as powerful as the former; the dose of the liquid as made by American manufacturers is 10 to 30 c.c. every 12 to 24 hours. *Antivenemous* serum, introduced by Calmette, has been described under the name *antivenin*. *Thyroid* serum was referred to here under *antithyroidin* (and *basedowsan*). *Yersin's* serum is used in bubonic plague, in mild cases hypodermically, in severe cases also intravenously—150 to 300 c.c. together at the outset.

Serums, Artificial Blood, are various mixtures of salts used subcutaneously in arterial sclerosis and affections dependent upon it (hemiplegia, paraplegia, etc.), as well as in collapse from profuse bleeding, etc. *Bardet's* serum consists of sodium chloride 1, sodium sulphate 2, sodium phosphate 3, carbolic acid ½ and sterilized distilled water 96½ parts. *Cantani's* serum consists of sodium chloride 2, sodium carbonate 1, and water 500 parts. *Chéron's serum No. 1* consists of sodium chloride 3, sodium phosphate 4, sodium sulphate 8, carbolic acid 1, and hot water 100 parts. *Chéron's serum No. 2* is the same as the former but without carbolic acid. *Crocq's* serum consists of sodium phosphate 1 and water 50 parts. *Dujardin-Beaumetz's* is made up of sodium carbonate 1, potassium sulphate 1, sodium lactate 1, sodium phosphate 0.5, sodium chloride 3.1, and water 1000 parts. *Gaube's antiarthritic* serum consists of potassium chloride 154, calcium chloride 60, sodium chloride 22, magnesium chloride 15, calcium iodide 5, casein (dry) 80, and cherry-laurel water 200 parts. (Dose, 1 to 3 c.c. one to three times weekly.) *Hayem's serum No. 1* con-

sists of sodium chloride 1, sodium sulphate 2, and water 200 parts. *Hayem's serum No. 2* is composed of sodium chloride 0.75 and water 100 parts. *Huchard's* serum consists of sodium chloride 2, sodium phosphate 4, sodium sulphate 1, and water 40 parts. *Huchard's modified* or *No. 2* serum is made up of sodium chloride 3, sodium phosphate 10, sodium sulphate 2.5, carbolic acid 1.5, and water 100 parts. *Kronecker and Lichtenstein's* serum is composed of sodium chloride 7.5, sodium carbonate 0.1, and water 1000 parts. *Latta's* serum consists of sodium chloride 3.5, sodium carbonate 1.7, and water 3400 parts. *Leclerc's* serum is made up of sodium chloride 4, sodium phosphate 0.5, sodium sulphate 0.5, and hot water 100 parts. *Luton's* serum consists of sodium chloride 4, sodium phosphate 4, sodium sulphate 10, and boiling water 100 parts. *Mathieu's* serum is composed of sodium chloride 1, sodium phosphate 4, sodium sulphate 6, and boiling water 100 parts. *Quinton's* serum is obtained by diluting sea water to a little below the specific gravity of the blood. *Rensi's* serum consists of iodine 1, potassium iodide 3, sodium chloride 6, and water 1000 parts. *Sapelier's* serum is composed of sodium chloride 6, sodium phosphate 0.45, sodium carbonate 3.1, potassium chloride 0.5, potassium sulphate 0.35, and boiling water 100 parts. *Schiess's* serum consists of sodium chloride 7.5, sodium carbonate 5, and water 100 parts. *Schwarz's* serum is made up of sodium chloride 6, and water 100 parts, with 2 drops of liquor sodæ to each 100 grams. *Sydmann's* serum is composed of sodium chloride 6, sodium carbonate 1, and water 1000 parts. *Trunecek's* serum consists of sodium sulphate 0.44, sodium chloride 4.92, sodium phosphate 0.15, sodium carbonate 0.21, potassium sulphate 0.4, and water 95 parts.

Servatol Soap is a neutral soap containing 1 per cent. of mercury oxycyanide and used for disinfecting surgeons' hands. *Servatol-marble soap* is a yellowish-white mass consisting of a neutral potash soap with 55 per cent of coarsely pow-

dered marble and 2 per cent. of mercury oxycyanide. It is used as a detergent, antiseptic soap.

Sesamin is a palatable emulsion of sesame oil intended for use in place of cod liver oil emulsion. Marketed also in combinations with ferrous iodide, guaiacol, oil of sandalwood, and camphor. Dose, ½ to 2 tablespoonfuls.

Sextonol Tablets consist of the six "tonols" (glycerinophosphates) of lime (2 grains), soda (2 grains), iron (⅛ grain), manganese (¼ grain), quinine (¼ grain), and strychnine (1/200 grain). These are employed as blood, nerve, and tissue nutrients.

Sicco is a *dry haematogen*, an odorless, reddish-brown powder, derived from blood and employed as a "blood-maker," pure or as an elixir. Dose, 5 to 20 grains three times daily.

Siccogen (*haematogen duplex*) diluted with an equal quantity of water is said to yield a product identical with haematogen, a dark-red, clear, permanent preparation of pleasant taste.

Siccoles ("dry oils") are dry triturations of non-palatable drugs, such as castor oil, extract of male fern, oil of sandalwood, creosote, etc., representing 50 per cent. of the drug.

Siccose is desiccated meat juice, made from beef.

Siderin Pills are a German make of *Blaud's pills*.

Sidonal is a trade name for *piperazin quinate* (chinate), which drug occurs as a white powder of pleasant, slightly acidulous taste; freely soluble in water. It is prescribed in gout, renal calculi, and other manifestations of uric acid diathesis. Dose, 75 to 120 grains in the course of the day, divided, with plenty of water.

Sidonal, New, is a cheaper yet equally active variety of sidonal—chemically, *quinic anhydride*, a white, odorless, tasteless powder, soluble in water, alcohol, ether or chloroform. Dose, 15 to 30 grains three to six times daily, with copious draughts of water.

Silberol is a trade name for *silver sulphocarbolate*, which see.

Silin (*hexamethylenetetramine citrosilicate*) is intended to be used in conjunction with alkalies in the uric acid diathesis (gout, gravel, etc.), and is hence marketed as "silin spring water," 1 liter of which contains silin 3 grams, sodium chloride 8 grams, sodium carbonate 2 grams, calcium carbonate 2 grams, magnesium sulphate 0.5 gram, and free carbonic acid 4.5 grams. Daily dose, one 750 c.c. bottle. See caution under *formaldehyde*.

Silver-casein.—See *argonin*.

Silver Chinaseptolate.—See *argentol*.

Silver Citrate (*Credé's antiseptic*, known abroad and formerly also on this market as *itrol*), $Ag_3C_6H_5O_7$, has come into vogue as a bactericide. It is claimed to be exceedingly powerful yet non-poisonous and non-irritating. It occurs as a white, odorless powder requiring 3800 parts of water for solution. It is applied pure or in 1 to 2 per cent. ointments on wounds, ulcers, etc., and in 1:4000 to 8000 aqueous solutions in gonorrhea, stomatitis, etc. Its solutions should be prepared in small quantities at a time (a pint or a quart), and kept in dark-amber bottles. See caution under *silver iodate*.

Silver Eosolate is defined as the neutral salt of trisulpho-acetyl-creosote, containing 50 per cent. of silver and 20 per cent. of creosote, and soluble in water and glycerin. It is used as an astringent antiseptic, on wounds, in gonorrhea, etc., in 1 to 5 per cent. solutions, in ointments, or pure. To make solutions, rub up the salt with a little glycerin and water to a paste, then add the rest of the water and heat gently.

Silver Fluoride (known in Italy as *tachiol*), AgFl, occurs as very deliquescent crystals rapidly changing on exposure to light and air to a yellow color and finally to a black crystalline mass. It is freely soluble in water, and said to be the most powerful antiseptic among the silver salts. Applied in 1:1000 to 1:5000 solutions chiefly; sometimes in 1 per cent. solutions. Its stains on linen may be removed by washing with weak solutions of potassium cyanide, or with a solution of corrosive sublimate 1, water 2000, salt 25.

Silver Iodate, $AgIO_3$, is a white powder almost insoluble in the usual solvents, and used chiefly in chronic diarrhea. Dose, 1/12 to 1/6 grain, as pills, several times daily. There is probably the same risk of permanent discoloration of the skin from internal use of this as from silver nitrate.

Silver Lactate, formerly known also as *actol*, $AgC_3H_5O_3+H_2O$, forms a white, odorless and nearly tasteless powder, soluble in 15 parts of water. It was introduced by Credé as an antiseptic for subcutaneous injection in certain infectious diseases (anthrax, erysipelas, etc.) and for disinfecting wounds, abscess-cavities, etc. Employed in 1:500 to 1:200 solutions. Dose, by injection, ¾ to 3 grains a day, singly or divided. The solutions should be prepared fresh with boiled, distilled water, and kept in black-glass bottles. See caution under *silver iodate*.

Silver Nucleinate is described under *nargol*. (Compare also "argyrol" of French manufacture.)

Silver Picrate is described here under its trade name, *picratol*.

Silver-protalbin is better known as *largin*, which see.

Silver Quinaseptolate.—See *argentol*.

Silver Sulphocarbolate (*silberol; silver phenolsulphonate* or *sulphophenate*), $C_6H_4.OHSO_3Ag$, occurs as a white powder, soluble in water and alcohol. It is used as an antiseptic and astringent in ophthalmology and surgery, mostly in 1:500 to 1:100 solutions, which are sensitive to light.

Silver Thiohydrocarburosulphonate is a synonym of *ichthargan*.

Silver Trinitrophenolate.—See *picratol*.

Silver-vitellin is described under the title *argyrol*.

Sinapol is a French neuralgia liniment consisting of alcohol (78), castor oil (12), menthol (3), mustard spirit (3), and aconitine (0.04).

Siris is an ethereal yeast extract intended as a substitute for meat extract, rich in nucleins but without the stimulating properties and the salts of meat extract.

Sirocol (*liquor kali sulphoguaiacolici comp.*) is a clear, syrupy liquid containing 7 per cent. of potassium guaiacolsulphonate (thiocol) and 7 per cent. of calcium salts. It is used in phthisis and chronic bronchitis. Dose, a teaspoonful to a tablespoonful three times daily.

Sirolin is a 10 per cent. by volume (equal to 7 per cent. by weight) syrup of thiocol (potassium guaiacolsulphonate), prescribed chiefly for chronic bronchitis and pulmonary tuberculosis, in doses of a teaspoonful to a tablespoonful three times a day, after meals.

Sirsol (formerly *sirosol*) is a preparation similar to if not identical with *sirolin*, made by an Alsatian firm.

Sitogen appears to be an extract of yeast. It is intended to supplant extract of beef as an addition to soups, etc.

Socotrin is a veterinary preparation consisting essentially of ethereal tincture of valerian and tincture of aloes.

Sodacol is a proprietary term for *sodium guaiacolsulphonate*, which forms one of the ingredients of a mixture known as "triacol."

Soderal is the name applied to bonbons consisting of sugar, malt extract and the ingredients of the mineral spring No. 12 at Soden on the Jaunus.

Sodiformasal is the sodium salt of formasal (methylenedisalicylic acid), hence *sodium methylenedisalicylate*, of the formula $C_{15}H_{10}O_2(CO.ONa)_2$. It occurs as an almost white powder, readily soluble in water, soluble also in alcohol, but insoluble in ether. It is used in migraine, neuralgia, rheumatism, chorea, etc. Dose, 5 to 20 grains. Incompatible with ferric salts. See caution under *formaldehyde*.

Sodium Acetyl-sulphanilate.—See *cosopris*.

Sodium Agaricinate, $C_{14}H_{29}OH(COONa)_2$, occurs as a white, tasteless powder, freely soluble in water. Dr. H. Schneider has used it in phthisical night sweats. Dose, 1½ to 3 grains, as powders, to be taken with water. Carbonic acid pro-

cipitates an acid agaricinate; mineral acids liberate agaricinic acid.

Sodium Anhydromethylenecitrate is described under *citarin*.

Sodium Bisulphate (*acid sodium sulphate*), $NaHSO_4+H_2O$, is no new chemical, but has only recently been brought to the fore as a remedy in typhoid fever by Dr. H. G. McCormick, of Williamsport, Pa. It occurs as colorless crystals soluble in water. Dose, 15 grains in 4 ounces of water several times daily.

Sodium Brenzcatechin-mono-acetate is the chemical designation for *guaiacetin*, which see.

Sodium Bromovalerianate is referred to under *valerobomine*.

Sodium Cacodylate or *dimethylarsenate*, $(CH_3)_2AsO.ONa+3H_2O$, occurs as an amorphous, white powder soluble in water. Used largely of late in place of the alkali salts of arsenic, because far less toxic than the arsenates. Dose, by mouth, ⅛ to ¾ grain one to five times daily; subcutaneously, daily ¾ to 1½ grains. It imparts a garlicky odor to the breath and perspiration.

Sodium Cinnamate (*hetol*), $C_6H_5CH:CH.CO_2Na$, is a white crystalline powder soluble in water. Used by intravenous injection in pulmonary tuberculosis. Dose, 2 to 15 minims of a 5 per cent. solution three times a week.

Sodium Diiodosalicylate, $C_6H_2(OH)I_2.COONa+2½H_2O$, occurs as colorless leaflets or needles soluble in 50 parts of water. It is used as an analgesic and antiseptic. Dose, 3 to 10 grains one to four times daily. Applied externally like iodoform, chiefly in parasitic skin diseases.

Sodium Fluorbenzoate (*sodium para-fluorbenzoate*), $C_6H_4FlCOONa$, occurs as a white powder soluble in water. It is recommended as an internal antiseptic and antizymotic, chiefly in lupus and other tuberculous processes. Dose, 8 grains three times daily.

Sodium Formate, $NaCHO_2+H_2O$, occurs as a white, water-soluble powder, and is employed externally in surgical tuberculosis (½ to 2 grains in solution once weekly), and internally in pneu-

monia (1 to 3 grains every 2 hours in infusion of adonis vernalis). See caution under *formaldehyde.*

Sodium Glycerinophosphate, $Na_2C_3H_7PO_6 + 7H_2O$, is marketed as 75 per cent. solution only, owing to its extreme deliquescence. It is put forward as an "assimilable nerve nutrient." Dose, by mouth, 3 to 10 grains, three times a day, as syrup or solution; hypodermically, 3 or 4 grains once daily. Its solutions and syrups do not keep well, and should hence be prepared in small quantities at a time. For hypodermic injections the water used should be boiled, distilled water.

Sodium Glycocholate, $NaC_{26}H_{42}NO_6$, is a constituent of bile, occurring, in the pure state as a yellowish, very bitter powder soluble in water or alcohol. It has recently been recommended as an efficient cholagogue, particularly in hepatic colic and cholelithiasis in general. Dose, 5 to 15 grains three times daily, in capsules with a few grains of magnesia to prevent nausea. An impure salt is also on the market in the form of a semi-solid.

Sodium Iodate, $NaIO_3$, is a white powder, soluble in water. It is used in the main as a substitute for potassium iodide internally, and for iodoform externally. Dose, 5 grains three times a day, in pills; subcutaneously (in muscular rheumatism), 1 to 1½ grains. Applied externally in 1½ to 10 per cent. solutions or ointments, or as a pencil (in corneal ulcers, trachoma, etc.).

Sodium Lygosinate.—See *lygosine.*

Sodium Meta-vanadate.—See *sodium vanadate.*

Sodium Methyl - arsenate. — See *disodium methyl-arsenate.*

Sodium Nuclsinate, the sodium salt of yeast nuclein, forms a white powder, almost completely soluble in water. It is used subcutaneously to stimulate nutrition the same as nuclein. (See the latter.)

Sodium Ossalinate is a sodium compound of the fatty acids in bone marrow. It is intended as a substitute for cod liver oil as an alterative and nutritive.

Sodium Para-fluorbenzoate.—See *sodium fluorbenzoate.*

Sodium Para-sulphobenzoate. — See *sodium sulphobenzoate.*

Sodium Perborate, $NaBO_3+4H_2O$, which in aqueous solution evolves hydrogen peroxide, has proved a good wound antiseptic in the hands of Dr. Kischensky. It is used as dusting-powder, or in freshly prepared solutions. It is also put forward as an intestinal antiseptic. Dose, 5 to 15 grains.

Sodium Persulphate, $Na_2S_2O_8$, is used chiefly in the solution known as *persodine.* See this.

Sodium Phenone-acetate is a chemical equivalent of *guaiacetin,* which see.

Sodium Phenylpropionate (*sodium hydrocinnamate*), $C_6H_5C.C.COONa$, differs from sodium cinnamate by having 2H less in its formula. It is put forward as a remedy, like the latter, in laryngeal and pulmonary tuberculosis. A hot ½ to 3 per cent. aqueous solution is inhaled twice a day, half an hour each time. A 25 per cent. solution is marketed as *thermiol.*

Sodium Pyrocatechin-mono-acetate is *guaiacetin,* which see.

Sodium Silicofluoride or **fluorsilicate,** also known as *salufer,* $NaSiF_6$, occurs as a white, granular powder, slightly soluble in water. It is prescribed as an antiseptic and astringent, for wounds, cystitis, gonorrhea, aphthæ, etc., in 1:1000 solution mostly.

Sodium Sozoiodolate.—See under *sozoiodole.*

Sodium Sulphanilate (*sodium anilinosulphate*), $C_6H_4NH_2.SO_2ONa+2H_2O$, occurs as white glistening leaflets, soluble in water. It is employed in acute catarrhs and iodism; it is believed to convert the nitrites present in the nasal secretion and saliva into indifferent diazo substances. Dose, 15 grains, in water, six times daily.

Sodium Sulphobenzoate.—Under this title a preparation has been brought forward as an internal antiseptic which is said to be produced by boiling molecular quantities of sodium sulphocarbolate and sodium formate together in dis-

tilled water and cooling. Should the supposed interaction be incomplete, sodium formate would be present. For an important caution regarding formates, see *formaldehyde*.

Sodium Sulphosalicylate, $NaC_7H_5O_3SO_3$, forms white crystals or powder, soluble in water and almost insoluble in alcohol or ether. It is used as an antirheumatic, antiseptic and antipyretic, like sodium salicylate, in rheumatism, neuralgia, chorea, pleurisy, etc. Dose, 10 to 30 grains.

Sodium Sulphuroso-benzoate Heckel (*sodium sulphite-benzoate*) is a white, crystalline powder, soluble in water, used as an external antiseptic in about ½ per cent. solution.

Sodium Tellurate, $Na_2TeO_4+5H_2O$, occurs as a white powder soluble in water. It is prescribed chiefly to arrest phthisical night-sweats, but also in typhoid fever. Dose, ¼ to ¾ grain in elixir.

Sodium Tetraborate, Neutral is the designation applied to a fused mixture of equal parts of borax and boric acid, occurring as transparent glass-like masses soluble freely in water, and recommended as a non-irritant, powerful antiseptic in diseases of the nose, ear, and eye. Applied in keratitis and conjunctivitis in substance finely powdered; in ear and nose affections, in saturated aqueous solution (about 16 per cent.).

Sodium Vanadate (*sodium meta-vanadate*), $NaVO_3$, occurs as a greenish-white, almost tasteless powder soluble in hot water. It is used as a nerve tonic and alterative in affections caused by sluggish metabolism and deficient oxidation—chlorosis, chronic rheumatism, diabetes, phthisis, etc. Dose, 1/60 grain in water, before meals, for two or three days of the week.

Soleine is "a natural, odorless petrolatum."

Solphinol is a mixture of borax, boric acid, and sulphites, employed in France as an antiseptic.

Sol-Sul is a water-soluble sulphur compound used like ichthyol in skin diseases, catarrhs, chronic rheumatism, ulcers, etc. It occurs as a thick, yellow liquid, smelling of sulphuretted hydrogen. Dose, 3 to 10 grains. Applied mostly in

5 to 20 per cent. ointments, or 2 to 5 per cent. solutions.

Solurol, also called *thyminic* acid, is described as "a nuclein derivative possessing the property of holding uric acid in solution and thus preventing its deposition in the tissues." Dose, 4 to 8 grains three times daily, in tablets or elixir (so marketed).

Solution of Sodium Chlorobromide (*Mitchell's fluid*), latterly recommended by Dr. H. W. Mitchell, of New York, for ulcerative processes including pulmonary tuberculosis, is prepared by adding to a suitable quantity of water, 3 per cent. of sodium chloride, 0.1 per cent. of bromine, and 0.5 per cent. of pure hydrochloric acid, and subjecting the mixture to the action of an electric current until chemical reaction has been completed. It is a pale-amber liquid, with a strong odor of chlorine, a slightly acid taste, and a specific gravity of 1.022. It should be kept in amber-colored bottles, in a cool place, and tightly corked. It is used pure on ulcers and other wounds; internally (in phthisis, etc.) in doses of 1 to 1½ fluid ounces four times daily, on an empty stomach.

Solutol is a water-soluble disinfectant, consisting of an alkaline solution of cresols in cresol-alkali, and containing 60 per cent. of cresol. A *crude* and a *pure* solutol are marketed. The former has a tarry odor, and is used for coarse disinfectant purposes. The pure solutol is used as a medicinal and household disinfectant.

Solveol is a neutral solution of cresols with sodium cresotinate, containing about 25 per cent. of free cresol. It mixes clearly with water, and its tarry odor is not perceptible in dilutions. It is employed as a surgical disinfectant, like carbolic acid.

Solvin is a saccharated extract of thyme analogous to pertussin and used like it in pertussis and allied affections.

Solvosal-lithium (*lithium salol ortho-phosphinate*), $C_6H_4.O.P.O.OLiOH.COOC_6H_5$, is a water soluble antipodagric and diuretic, used mainly in

gouty conditions. Dose, 4 to 8 grains three or four times daily.

Solvosal-potassium (*potassium-salol orthophosphinate*) is soluble in 20 parts of water, and is used as an antarthritic and diuretic in gouty manifestations. Dose, 4 to 8 grains several times daily.

Solykrin Pills consist of a mixture of 15 parts of solveol, 5 of lysol, and 2 of creolin, and are employed in puerperal fever. Dose, 1 to 3 pills.

Somaferrol is an iron and manganese elixir containing also somatose. It is prescribed as a hematinic and nutrient, especially during convalescence after acute diseases. Dose, a dessertspoonful to a tablespoonful.

Somatose is the name applied to deutero- and hetero-albumoses derived from meat albumin by a special process. The article occurs as a light-yellow, granular, odorless, almost tasteless powder, soluble in water and all ordinary fluids. It is prescribed as a nutrient and reconstructive for the sick and infants. Dose, 150 to 240 grains per day; children up to 100 grains daily. The powder is poured into about half a glassful of hot water and let stand undisturbed until solution is effected. It is then added, if desired, to broth, soup, etc. It is best taken before meals.

Somatose *biscuits*, somatose *chocolate*, and somatose *cacao* all contain 10 per cent. of somatose.

Somatose, Iron.—See *ferro-somatose*.

Somatose, Milk, is described under *lacto-somatose*.

Somatose, Liquid, is marketed as sweet and spiced, the former having a mildly aromatic, sweet taste, the latter a spicy taste reminding of soup greens. Dose, a tablespoonful three times a day, before meals.

Somdine, or *Barnes' concentrated tincture of passiflora incarnata*, is used as a soporific, anodyne and nerve stimulant.

Somnal is an alcoholic solution of chloral-urethane; see the latter.

Somnin is not a hypnotic, but an antiseptic consisting of boric acid and phenols.

Somnoform is a local anesthetic used in dentistry. It is said to be a mixture of ethyl chloride (60), methyl chloride (35), and ethyl bromide (5).

Somnos is defined as "a definite chemical product formed by the synthesis of chlorethanal with a polyatomic alcohol radical." It is marketed in solution, the dose of which as a hypnotic is 1 to 2 tablespoonfuls, best taken in water or warm milk.

Sophol is a readily melting pulverulent succedaneum for mesotan as a topical antirheumatic, reported to be less irritating but also less efficacious. Dose, 30 grains per inunction.

Sorbilin is an analgesic, antipyretic, and anodyne of undivulged composition. Dose, 5 to 15 grains. Marketed also as 5-grain tablets.

Sorisin is a 10 per cent. solution of sodium-guaiacol sulphonate in syrup of orange peel, used in pulmonary affections. Dose, 1 to 2 teaspoonfuls three times daily.

Soson is, according to the manufacturers, pure, dry muscle albumin. It occurs as a grayish-white, fine, odorless and almost tasteless powder, insoluble in water. It is used as a nutrient. Dose, a teaspoonful, with soups, etc.

Sozal is the trade name applied to *aluminium para-phenolsulphonate* or *sulphocarbolate*, $(C_6H_4.OH.SO_3)_3Al_2$. The drug occurs as brownish, cyrstalline granules, readily soluble in water, glycerin or alcohol. It is used in 1 per cent. solution on suppurating ulcers, in cystitis, local tuberculosis, etc.

Sozoboral is a mixture of aristol, sozoiodole salts and borates, used in coryza.

Sozoiodole is the generic name adopted for salts of diiodo - para - phenolsulphonate (sozoiodolic acid), $C_6H_2I_2.OH.SO_3H+1\frac{1}{2}H_2O$. The latter occurs as white crystals, readily soluble in water, glycerin, and alcohol and employed in 2 to 3 per cent. solution on wounds. *Mercury* sozoiodole occurs as a very fine, orange-yellow powder, soluble in sodium chloride solution, but insoluble in water or alcohol. It is employed in 10 per cent. ointment

in parasitic and syphilitic skin diseases, and in 1 per cent. dusting powder in intertrigo, leg ulcers, etc. Dose, ½ to 1¼ grains. *Potassium* sozoiodole occurs as a white, odorless powder, which is soluble in 50 parts of water; it contains 52.8 per cent. of iodine. It is used externally in scabies, impetigo and other skin diseases, in gonorrhea, rhinitis, diphtheria, etc. Applied in 5 to 10 per cent. ointments or dusting powder, or in 25 to 50 per cent. insufflation powder. *Sodium* sozoiodole occurs as colorless, odorless needles, soluble in 15 parts of water, 20 of glycerin and in alcohol. It is used internally as an antiseptic and antidiabetic, and externally in syphilitic lesions, gonorrhea, rhinitis, whooping cough, etc. Dose, 2 to 10 grains. Externally in 2 to 8 per cent. solutions, 10 to 25 per cent. powder or ointment, etc. *Zinc* sozoiodole occurs as colorless, odorless needles, soluble in 25 parts of water, freely soluble in alcohol or glycerin. It is used largely in nasal catarrh (5 to 10 per cent. powder or 3 per cent. solution), in gonorrhea (½ to 1 per cent. solution), and in skin diseases (5 to 10 per cent. ointment). *Aluminium*, *ammonium*, *barium*, *lithium*, *magnesium* and *lead* sozoiodoles are also marketed, but are not in vogue with the medical profession.

Spermine Poehl is the hydrochlorate of a base existing in the testicles and other glands of the animal economy, $C_5H_{14}N_2$. It is said to act upon the entire nervous system uniformly, as a tonic and stimulant, and is used in neurasthenia, locomotor ataxia, diabetes, phthisis, cachexias, etc. Marketed in 2 per cent. solution for subcutaneous use, dose 15 minims daily or every other day; and as *elixir* ("essence"), a 4 per cent. aromatized, alcoholic solution of the double salt spermine-sodium chloride; dose 10 to 30 drops in alkaline water in the morning.

Spermine Marpmann is described as a dilute-alcoholic solution of the soluble substances of fresh bullocks' testicles, containing 2 per cent. of the base $C_5H_{14}N_2$ (spermine) together with albumins (absent in spermine Poehl). It is used in

marasmus, convalescence from infectious diseases, etc., like Poehl's spermine, but given by the mouth. Dose, 5 to 20 drops two or three times daily.

Sphagnol is a distillation product of peat, consisting essentially of anthracene, benzene, phenol and cresols. It is used as a succedaneum for balsam of peru, tar and ichthyol in skin diseases. A *heavy* sphagnol, the oil with all its paraffins, and a *turbid* sphagnol, the oil deprived of its paraffins, are distinguished.

Sphymogenin is a brand name for the active principle of the suprarenal capsule. See *adrenalin*, under which heading this principle is fully described.

Spinol is an organic iron compound derived from spinach, marketed in two forms: *syrupy*, dose 5 to 10 drops for children and ½ to 1 teaspoonful for adults; and spinol *dry*, an amorphous, brownish-green powder of pleasant odor and bitterish-salty taste, insoluble in the ordinary solvents, dose 2 to 8 grains three times daily.

Spleniferrin is obtained from the spleen of cattle, and is brought forward as an organic iron compound for use wherever iron is indicated. It occurs as a brown powder, but is marketed only as pills.

Splenin is an English splenic extract, like spleniferrin.

Stagnin is a preparation obtained by Hirsch by autolysis of horses' spleen. Originally a yellowish-brown, water-soluble powder, it is marketed only in solution, containing a little chloroform as preservative. It has been recommended by Dr. Theo. Landau as a hemostatic in gynecological practice; by intramuscular or subcutaneous injection. Dose, 1 to 3 c.c. daily.

Staphisagrine, $C_{32}H_{38}NO_6$, is an alkaloid of delphinium staphisagria. It occurs as an amorphous, bitter powder, soluble in alcohol and very sparingly in water. It is less toxic than delphinine, and is without action on the heart. It is

used as an antidote to strophanthin. Dose 1/30 to 1/15 grain.

Staphylase is supposed to be the active constituent of beer yeast. It is used in staphylococcus infection.

Starch, Iodized (*iodamyl*) is a bluish-black powder, soluble in alcohol, and containing 2 per cent. of iodine. It is used internally in diarrhea, typhoid fever, etc., and externally in ointment form as a substitute for iodine tincture. Dose, 3 to 10 grains.

Stenosine is a trade name for *disodium methylarsenate*, which see.

Steresol Berlioz is a solution of 270 parts of shellac, 10 of benzoin, 10 of balsam of tolu, 100 of carbolic acid, 6 of cinnamon oil, and 6 of saccharin in alcohol to make 1000 parts. It is used as a paint in diphtheria, in tuberculous ulcers of the skin, etc.

Steriform Chloride consists of 5 per cent. of formaldehyde, 10 per cent. of ammonium chloride, 20 per cent. of pepsin, and 65 per cent. of milk sugar. It is used internally in infectious diseases chiefly. Dose, 5 to 15 grains. See caution under *formaldehyde*.

Steriform Iodide consists of the same ingredients as the preceding, save that it contains ammonium iodide instead of ammonium chloride. Dose, 5 to 15 grains. See caution under *formaldehyde*.

Sterisol Oppermann is a general disinfectant containing the salts of milk besides menthol and 0.3 per cent. of formaldehyde. See caution under *formaldehyde*.

Sterisol Rosenberg is a solution of milk sugar saturated with formaldehyde of undivulged concentration. It is employed internally in tuberculosis and diphtheria chiefly. Dose, ¼ to 1 grain. See caution under *formaldehyde*.

Stili Resinosi Unna are pencils consisting of rosin and 10 per cent. of yellow wax. They are used as a depilatory, heated and pressed upon the hirsute surface.

Stili Spirituosi Unna consist of so-called solidified alcohol and soda soap, put up in collapsible tubes or as pencils. To prepare them, 6 parts of sodium stearate are dissolved in a mixture of 2 parts of glycerin and 100 parts of alcohol and the mixture poured into forms and allowed to cool. They are used as a protective skin varnish.

Stomacin is a mixture of sodium bicarbonate, bismuth salicylate, powdered rhubarb and aromatic powder. It is used as a stomachic, carminative and antizymotic. Dose, 15 to 30 grains.

Stomatol is a wound antiseptic consisting of 2 parts of soap, 45 of alcohol, 2 of aromatic substances (oil of peppermint, etc.), 5 of glycerin, and 42 of water.

Stomosan is *methylamine phosphate* intended as a remedy for gall-stone disease.

Stovaine (*amylene hydrochlorate*) is a new local anesthetic like cocaine hydrochlorate, but claimed to be less toxic. It occurs as glistening scales freely soluble in water or alcohol. It is used mainly in 4 per cent. solution subcutaneously; internally in ½ per cent. syrupy solution.

Stronformasal is defined as *strontium methylenedisalicylate*, and reputed to have a tonic value in anemic rheumatic cases. Dose, 20 to 30 grains three or four times daily. See caution under *formaldehyde*.

Strontium Acetate occurs as a white powder soluble in water. It has come into use as an anthelmintic. Dose, 45 grains in water sweetened with glycerin, morning and evening for five days.

Strontium Arsenite, $Sr(AsO_2)_2+4H_2O$, forms a white powder soluble in water. It is employed as an alterative, chiefly in malaria and skin diseases. Dose, 1/30 to 1/15 grain.

Strontium Ferrate occurs as a dark-red powder, slightly soluble in water, but decomposing rapidly with the evolution of oxygen and the formation of iron and strontium bromides. It is used as a hematinic and nervine. Dose, 5 to 15 grains.

Strontium Salicylate, $Sr(C_7H_5O_3)+2H_2O$, occurs as white crystals, soluble in water and alco-

hol. It is prescribed as an antirheumatic and anodyne in doses of 10 to 15 grains two or three times daily.

Strophanthin is the active glucoside of strophanthus seed. It occurs as a white or yellowish, intensely bitter powder, soluble in about 40 parts of water, freely in alcohol, and almost insoluble in chloroform or ether. It is prescribed as a heart tonic and sustenant, like digitalin, but is without diuretic action. Dose, 1/300 to 1/60 grain three times daily. Antidotes are atropine or muscarine subcutaneously, camphor, or picrotoxin.

Strychnine Arsenate occurs as a white powder soluble in water. It is used chiefly in tuberculous skin diseases and malaria. Dose, 1/60 to 1/15 grain; subcutaneously, 4 to 16 minims of ½ per cent. suspension in liquid paraffin.

Strychnine Cacodylate, recommended as an appetizer and alterative in phthisis, occurs as a white powder soluble in water. It is a very unstable salt, which quickly decomposes in solution, the strychnine depositing. Such a liquid would of course be extremely dangerous, as the patient might get a fatal quantity of strychnine in a dose from the last portion of it; the drug should not be dispensed in solution. Dose, 1/30 to ¼ grain, three times daily.

Strychnine Glycerinophosphate occurs as a white, crystalline powder soluble in water. It is used as a reconstructive nervine. Dose, 1/60 to 1/20 grain.

Strychnine Iodate, $C_{21}H_{22}N_2O_2HIO_3$, occurs as colorless needles, soluble in water. It is employed mostly subcutaneously in certain paralyses, anesthesias, etc. Dose, 1/30 to 1/10 grain.

Strychnine Nitrate occurs as white needles soluble in 90 parts of water. It is used largely in dipsomania, hypodermically. Dose, 1/60 to 1/20 grain.

Strypticin, $C_{11}H_{13}NO_2HCl$, is *colarnine hydrochloride*, the base of which is an alkaloid obtained from narcotine by oxidation. It occurs as a yellow, crystalline powder, of bitter taste, and read-

ily soluble in water and alcohol. It is used as a uterine hemostatic and sedative, and as a styptic in dental and nasal hemorrhage. Dose, in violent bleeding, 1½ to 4 grains, several times a day; in menorrhagia, ¾ to 1½ grains four or five times daily, in tablets or elixir. Externally it is applied in substance or in strong solution, or as gauze or cotton. Marketed also as ¾ grain sugar coated tablets, as dental tablets, and as gauze.

Styptol is neutral *cotarnine phtalate*, and thus related to stypticin. It occurs as a yellow, bitter powder, freely soluble in water. It is used like stypticin, and in the same doses. Marketed also as ¾-grain sugar coated tablets.

Styracol is the *cinnamic ester of guaiacol* or *guaiacol cinnamate*, occurring as a white, odorless powder, devoid of guaiacol taste, and insoluble in water. It is used in place of guaiacol in phthisis and intestinal tuberculosis and catarrh. Dose, 15 grains three or four times daily, as powders with sugar; for children from 4 to 8 grains per dose.

Styrosapon is a neutral potash soap containing 25 per cent. of styrolin, the active ester of storax, and credited with antiseptic and antiparasitic properties.

Subcutin is the name applied to *anesthesin para-phenolsulphonate*, which occurs as a white powder soluble in 100 parts of water. Its solutions are not decomposed by boiling, and it is used subcutaneously in 1 per cent. solution in physiological salt solution as a local anesthetic in place of anesthesin.

Sublamine is the trade name for *ethylenediamine-mercury sulphate*. The substance occurs as a white powder readily soluble in water. It is recommended for disinfection of the hands in surgical and gynecological practice, and as a substitute for corrosive sublimate hypodermically in syphilis, in eye diseases and other cases wherein mercuric chloride is used. It is said to be less irritating than the latter, and not to cause stomatitis or diarrhea. Dose, 15 minims of 1 to 3 per cent. solution subcutaneously. It is also applied

externally in 1:500 to 1:5000 solution. For hand disinfection a 1:1000 solution is used. It is also employed as a fixative for anatomical, pathological and histological purposes (5 to 10 per cent. solutions).

Succinyl Dioxide or Peroxide.—See *alphozone*.

Sucramin is the ammonium salt of saccharin, or *ammonium ortho-sulphamine benzoate* or *ammonium benzoic sulphinide*. It occurs as a white, freely soluble powder of intensely sweet taste, and is intended as a substitute for soluble saccharin (sodium-benzol-sulphonic imide) as a sweetener.

Sudol is a local remedy for excessive perspiration, consisting of .3 per cent. of formaldhyde in a mixture of wool fat and glycerin, and perfumed with oil of wintergreen. See caution under *formaldehyde*.

Sudoral is another remedy used in excessive sweating of the feet. It contains boric, benzoic, and tartaric acids, and alum, in solution.

Sugerol is a brand of *benzosulphinide* (saccharin).

Sulfammon is the counterpart of *ichthyol* made by a competing firm.

Sulfinid is a German brand of *benzosulphinide* (saccharin).

Sulfoguaiacin (*quinine sulphoguaiacolate* or *guaiacol-sulphonate*) occurs as small, yellow, bitter scales, soluble in water and alcohol. It is prescribed in phthisis, intestinal catarrh, scrofula, etc. Dose, 5 to 15 grains three times daily.

Sulfonal (*sulphonmethane; diethylsulphon-dimethyl-methane*) has the formula $(C_2H_5SO_2)_2C.(CH_3)_2$ and occurs as colorless, odorless, tasteless crystals, soluble in 360 parts of water, 47 of alcohol, and 45 of ether. It is prescribed as a hypnotic and nerve sedative. Dose, 15 to 40 grains, in powder or dissolved in boiling water and cooled.

Sulfosote is the potassium salt of the diphenols and diphenolic esters contained in creosote. It is a brown, syrupy fluid, freely soluble in water, and extremely hygroscopic, in view of which it is marketed only as a 10 per cent. syrup that lacks

the odor of creosote and is palatable. It is cheaper than sirolin, and is used, like the latter, in consumption, chronic bronchial catarrh, etc., in the dose of 1 to 4 fluid drams.

Sulfurol is claimed to be the *ammonium sulphoichthyolate* of the Swiss Pharmacopœia, and would hence appear to be identical with *ichthyol*, which see.

Sulphogen is advertised as an antiferment, antacid, and stomachic, and said to contain "in each fluid dram 1 grain of sulphur, 3 grains of magnesia, and the active principle of genista, with aromatics." It is used in acid dyspepsia, flatulence, and the like. Dose, a teaspoonful three to six times daily, after eating.

Sulpholythin is defined as the *sulphophosphite of sodium and lithium*. It is a granular, noneffervescent alkaline salt, sparingly soluble in cold water, but readily soluble in hot water. It is used as a hepatic stimulant and eliminant, in chronic constipation, auto-intoxication, rheumatic and gouty conditions, etc. Dose, a teaspoonful in hot water at bedtime or before breakfast.

Sulphonmethane and **Sulphonethylmethane** are the U. S. P. designations for *sulfonal* and *trional* respectively.

Sulphophenol-silver.—See *silberol*.

Supradin is an iodized dried extract of the suprarenal gland. Dose, 2 to 5 grains.

Suprarenaden is a dried extract of suprarenal gland, 1 part representing 2 of fresh capsule. It is used in diabetes, Basedow's disease, etc. Dose, 7½ grains two or three times daily.

Suprarenal Gland Dried usually represents five times its weight of fresh suprarenal capsule. It is prescribed as an alterative and nervine, in Addison's disease, diabetes insipidus, climacteric disturbances, etc. Dose, 3 to 6 grains, after meals. The active principle of the suprarenal gland is known by various trade names and is described under *adrenalin*.

Suprarenalin and **Suprarenine** are brand names for the therapeutically active constituent of the suprarenal gland. Both articles are mar-

keted in 1:1000 solution, physiological salt solution being the solvent. See *adrenalin*.

Suprarenine Borate occurs as white crystals readily soluble in water; 1.3 parts equal 1 part of suprarenine. Action the same as suprarenine. It is used as a hemostatic in tooth extraction. Marketed as tablets, each containing 1/500 grain of suprarenine borate, ⅙ grain of cocaine hydrochlorate, and approximately ⅛ grain of sodium chloride, used in solution of 1 tablet in 1 c.c. of sterile water.

Sycose is a trade name for the article commonly known as *saccharin* and now official under the name of *benzosulphinide*.

Synthol is described as a chemically pure synthetic substitute for absolute alcohol.

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Tablets, Antiepileptic, contain per hundred 1 gram of validol, 24 grams of compound effervescent powder (?), 30 grams of potassium bromide, 30 grams of sodium bromide, and 15 grams of ammonium bromide.

Tablets of Extract Fucus Vesiculosus (reducing tablets) are chocolate-coated tablets containing 1 grain of extract of bladder wrack, 1½ grains of dried bitterless extract of cascara sagrada, 1½ grains of extract of frangula, and milk sugar to make 7½ grains. Dose, 1 tablet two or three times daily.

Tachiol is an Italian trade name for *silver fluoride*, which see.

Tachysan is a colorless liquid, of strong menthol-like odor, described as a distillation product of equal parts of the wood of the camphor tree and the whole moxa and peppermint plants. It probably contains camphor dissolved in wormseed and peppermint oils, and is used as an embrocation in headache, rheumatism, lumbago, etc.

Taka-Diastase (Koji), obtained by J. Takamine by the action of aspergillus oryzæ (Cohn) upon steamed rice, occurs as a brownish, hy-

groscopic, nearly tasteless powder, soluble in water but insoluble in alcohol. It is used in amylaceous dyspepsia, 1 part digesting 100 parts of dry starch. Dose, 2 to 5 grains, after meals.

Tallianine is an aqueous solution of an ozonized terpene, said to liberate on contact with the blood 6 volumes of ozone per unit volume. It is used by intravenous injection in pulmonary tuberculosis, pneumonia, infectious endocarditis, septicemia, etc. Dose, 5 c.c. once daily or every second day. Marketed in 5 c.c. tubes; also as veterinary tallianine, in 10 c.c. tubes.

Tanformal is a compound of tannic acid, phenol, and formaldehyde, occurring as a brown powder of slight aromatic odor and taste. It is insoluble in water, and decomposed by alkalies into its components. It is employed as an intestinal astringent and disinfectant. Dose, 10 to 30 grains. See caution under *formaldehyde*.

Tanichthol Suppositories contain carbolic acid, ichthyol, tannic acid, extract of belladonna, extract of stramonium, extract of witch-hazel, with or without (1 grain of) opium. They are used in hemorrhoids and anal fissure.

Tannal is a trade name applied to basic *aluminium tannate*, a light-brown powder insoluble in water and employed in nose and laryngeal affections by insufflation as an astringent antiseptic. *Soluble tannal* is *aluminium tannotartrate*, a yellowish-brown powder soluble in water, employed as a gargle or douche in throat and nose troubles, in 1 to 5 per cent. solution.

Tannalbin (*tannin albuminate exsiccated*) occurs as a brown, odorless, tasteless powder, containing 50 per cent. of tannic acid. It is insoluble in the ordinary solvents, but soluble with decomposition in alkali solutions. It is employed as an intestinal astringent, in diarrheas of various forms. Dose, 15 to 30 grains, as powder or loosely compressed tablets.

Tannalborin is defined as a compound of aluminium subgallate with sodium polyborate, and is used as an intestinal astringent in veterinary practice. Calves receive a teaspoonful, fowls a

tablespoonful, dogs 15 to 45 grains, two or three times daily.

Tannigen (*acetyl-tannin* or *tannic acid acetic ester*) occurs as a light-gray, nearly odorless and tasteless, somewhat hygroscopic powder, soluble in alcohol, solution of sodium phosphate, borax, or soda, but insoluble in water. It is used as an intestinal astringent in non-infectious diarrhea. Dose, 7½ to 15 grains three to six times daily, as powders. Decomposed by alkalies.

Tannin Aleuronat.—See under aleuronat.

Tannipyrine (*antipyrin tannate*) is a condensation product of tannic acid and antipyrin employed as a styptic in nosebleed, etc.

Tannobromine is obtained by the action of formaldehyde upon dibromtannin. It occurs as a reddish or yellowish-gray powder, containing 25 per cent. of bromine, soluble in alcohol, slightly soluble in water, readily soluble in alkaline liquids. It is employed as a nerve sedative in place of the alkali bromides, and, externally, as an antipruritic. Dose, 15 to 60 grains three times daily. See caution under *formaldehyde*.

Tannocasum results from the action of tannic acid and formaldehyde upon casein in alkaline solution. It occurs as a gray powder, insoluble in the ordinary solvents, and used as an intestinal astringent like tannalbin, etc. Dose, 10 to 30 grains. See caution under *formaldehyde*.

Tannochrom is a combination of chromium bitannate and resorcin, marketed as an ash-gray insoluble powder containing 50 per cent. of the substance, and as a 50 per cent. solution readily miscible with water, alcohol, glycerin, etc. The powder is used in ointments in ulcers, eczema, etc.; the liquid in ¼ to ½ per cent. solution in gonorrhea.

Tannocreosoform is an odorless, tasteless compound of tannic acid and creosote with formaldehyde; used as an intestinal antiseptic and astringent, particularly in tuberculous enteritis. Dose, 5 to 20 grains. See caution under *formaldehyde*.

Tannoform (*tannin-formaldehyde, methylene-ditannin*) is a condensation product of tannic acid

and formaldehyde, occurring as a whitish-red, odorless powder, soluble in alcohol, and in alkalies, but insoluble in water. It is employed as a drying antiseptic and deodorant in sweating feet, weeping eczema, etc., and as an intestinal astringent and disinfectant. Used externally pure or in 10 to 25 per cent. dusting powders. Dose, 4 to 15 grains; for *cattle*, 5 to 10 drams. See caution under *formaldehyde*.

Tannoguaiaform is an odorless, tasteless compound of tannic acid, guaiacol and formaldehyde, employed as an intestinal astringent and disinfectant, especially in intestinal tuberculosis. Dose, 8 to 20 grains. See caution under *formaldehyde*.

Tannon is a name by which *tannopine* was known some time ago.

Tannopine is chemically *hexamethylenetetramine-tannin*. It forms a fawn-colored, odorless, tasteless powder, insoluble in the ordinary solvents, but soluble with decomposition in alkaline liquids. It is prescribed as an intestinal astringent and disinfectant, in diarrheas of various kinds. Dose, 10 to 15 grains four times daily, as powders or tablets. Marketed also as *veterinary* tannopine. See caution under *formaldehyde*.

Tannosal is described under the name most commonly employed: *creosal*.

Tanocol is a compound of tannin and gelatin, occurring as a grayish-white, odorless powder, containing about 50 per cent. of tannic acid, nearly insoluble in water, but soluble with decomposition in alkaline liquids. It is prescribed as an intestinal astringent. Dose, 15 to 30 grains, in barley gruel or the like.

Taphosote (also called *creosote tannophosphate*, which is incorrect, as creosote is not a simple base), is said to be formed from the creosote phosphoric acid ester of tannin (another impossible proposition), occurs as a grayish-yellow syrupy liquid, and is used as a substitute for creosote, particularly in tuberculous and other chronic diarrheas. Dose, 15 to 30 grains three times daily,

in pearls or capsules, or with milk. Marketed as 0.5 gram pearls.

Tarolin Capsules contain salol, oil of sandalwood, and extract of cubebs, and are employed in gonorrhea, cystitis, and other catarrhal affections.

Tartarlithine is a trade designation for *lithium bitartrate*, small white crystals or crystalline powder, soluble in water, and employed largely in gouty and suppurative gingivitis. Dose, 5 to 10 grains three times daily.

Tartrophen is *phenetidin tartrate*, a product analogous therapeutically to citrophen (phenetidin citrate), and used like it as an antipyretic and analgesic. Dose, 7½ to 15 grains.

Tebecin Marpmann is an alcoholic liquid extract of blood coagula from calves and horses immunized against tuberculosis. It is employed in consumption. Dose, 5 to 15 drops, thrice daily.

Tegmin is an emulsion of wax, acacia and water, containing 5 per cent. of zinc oxide and a little lanolin. It is used as a skin varnish or protective, and as a vehicle for skin remedies.

Tegones.—See under *gelones*.

Testaden is a lactose trituration of dried extract of bull's testicles, standardized so that 1 part represents 2 of fresh organ. It is used in spinal and nervous diseases, in impotence, neurasthenia, etc. Dose, 15 to 30 grains.

Testidin is a preparation of fresh bull's testicles in extract form; and testin is a similar product in tablet form. Their action is analogous to that of testaden.

Tetanus Antitoxin.—See under serums (antitetanic).

Tetraiodophenolphtalein.—See *nosophen*.

Tetraiodophenolphtalein - bismuth.—See *cadoxin*.

Tetraiodophenolphtalein-mercury is described under *apallagin*.

Tetraiodophenolphtalein-sodium is *antinosin*.

Tetraiodopyrrole is official in the U. S. P. under the name *iodole;* see this title.

Tetramethylammonium Hydroxide, $(C_2H_6)_4N$-OH, is marketed only as 10 per cent. aqueous so-

lution, which is colorless, alkaline, bitter, and caustic; turning pinkish with age. It is used in rheumatism and gout. Dose, 10 to 20 minims three times daily, well diluted.

Tetramethylthionine Hydrochloride is the new pharmacopœial designation for pure, medicinal *methylene blue*, under which common name it has been described. See caution under *formaldehyde*.

Tetranitrol is a terse synonym of *erythrol tetranitrate*.

Tetronal or *diethylsulphonediethylmethane*, $(C_2H_5)_2.C.(C_2H_5.SO_2)_2$, occurs as shining leaflets readily soluble in alcohol, sparingly soluble in water. It was introduced as a hypnotic and nerve sedative like sulfonal, but has been withdrawn from the American market. Dose, 15 to 30 grains.

Teucrin Mosetig is a sterilized extract of teucrium scordium, marketed in 3 c.c. hermetically sealed tubes, and used in old abscesses, fungous adenitis, lupus, etc. Dose, 3 c.c., injected near the diseased part.

Thallium Acetate (*thallous acetate*), $TlC_2H_3O_2$, occurs as white crystals, soluble in water and alcohol; used in syphilis and in phthisical night-sweats. Dose, 1½ to 3 grains at bedtime. Often causes the hair to fall out.

Thanatol.—See *guæthol*.

Theobromine Acetylmethylenesalicylate is described under its trade designation, *diurazin*.

Theobromine and Lithium Benzoate, also known by the trade name *uropherin B*, occurs as a white powder, containing 50 per cent. of theobromine, and soluble when fresh in 5 parts of water, but readily decomposing on exposure. It is used as a diuretic. Dose, 5 to 15 grains, in powders or capsules.

Theobromine and Lithium Salicylate, also designated *uropherin S*, occurs as a white powder, decomposing on exposure, and used in the same cases and doses as the preceding article.

Theobromine Salicylate, $C_7H_8N_4O_2.C_7H_6O_3$, is claimed to be a true salt of theobromine. It forms

white needles, sparingly soluble in water without decomposition. It is used as a diuretic and urinary antiseptic. Dose, 7½ to 15 grains.

Theobromine-sodium and Sodium Acetate.—See *agurin*.

Theobromine-sodium and Sodium Salicylate (*theobromine sodio-salicylate; theobromine and sodium salicylate*) occurs as a white, odorless powder, decomposing on exposure. It is used as a diuretic, especially in post-scarlatinal nephritis. Dose, 15 grains 5 or 6 times daily, in powder with water. Also marketed as *diuretin*.

Theocin is the trade name for *synthetic theophyllin* (dimethylxanthine 1:3). The article occurs as a white, odorless, bitter, crystalline powder; soluble in 180 parts of water, sparingly soluble in alcohol, insoluble in ether, and readily soluble in dilute alkali solutions, forming salts with the alkalies. It is employed as a diuretic. Dose, 3 to 5 grains, three or four times daily, in hot liquids, after meals.

Theocin-sodium Acetate.—See *acet-theocin-sodium*.

Theophyllin is an alkaloid contained in tea leaves, *dimethylxanthine* 1:3, an isomer of theobromine ($C_7H_8N_4O_2$). It is described under *theocin*.

Theophyllin-sodium is the sodium salt of the preceding, somewhat more freely soluble in water, and used for the same purposes, but in slightly larger doses (6 grains).

Theophyllin-sodium and Sodium Salicylate is a still more readily soluble compound of theophyllin, given as a diuretic in doses of 7½ grains three or four times daily, in solution. It and theophyllin-sodium are said to irritate the stomach less than does theophyllin itself.

Theophyllin, Synthetic.—See *theocin*.

Therapogen is the fanciful name of a disinfectant and deodorant, defined as "the water-soluble compounds of various terpenes with the naphtalin group;" an oily, saponaceous liquid of pleasant odor and used on wounds in 30 per cent. solution.

Thermiol is a 25 per cent. solution of *sodium phenylpropiolate;* see the latter heading.

Thermodin is the terse name for *acetylparaethoxyphenylurethane*, $C_6H_4.(C_2H_5O)N.CO_2.C_2H_5.CO.CH_3$. The drug occurs as colorless, odorless crystals, soluble in 2600 parts of water, and is used as an antipyretic and analgesic, like acetanilid. Dose, 7½ to 20 grains, as powders.

Thermofuge is an antiseptic poultice composed of aluminium silicate, glycerin, boric acid, menthol, thymol, oil of eucalyptus and ammonium iodide, and used in inflammations. (An analogous product is now official under the name *cataplasma kaolini.*)

Thermogene is a counter-irritant and anodyne cotton impregnated with the active principles of capsicum frutescens. It is employed in respiratory colds, lumbago, rheumatic pains, etc.

Thermol is defined as *acetyl-salicyl-phenetidin*, and occurs as a white, odorless, tasteless, crystalline powder. It acts as an antipyretic and analgesic. Dose, 5 to 15 grains. Marketed also as tablets of various sizes.

Thial is the trade name of *hexamethylenetetramine oxymethylsulphonate*, a chemical occurring as a white, odorless powder, readily soluble in water. It is used as a disinfectant and deodorant, in ½ to 2 per cent. solutions, medicinally and for general use. See caution under *formaldehyde.*

Thialion is a "laxative compound of lithium," used in gouty conditions, cystitis, etc. Dose, a heaping teaspoonful in hot water, usually before breakfast.

Thiderol is a syrup containing 2 per cent. of guaiacol and employed in laryngeal and pulmonary affections. Dose, 1 to 2 teaspoonfuls, three times daily.

Thieukalyptol is the name latterly applied to *sanosin*, which title see.

Thigenol is defined as the sodium salt of the sulphonic acid of a synthetic sulpho oil (derived from oil of sweet almond); a dark-brown syrupy liquid, containing 10 per cent. of sulphur organically combined, specific gravity 1.062, of faint,

sulphurous odor and empyreumatic taste; soluble freely in distilled water, diluted alcohol, glycerin or chloroform; miscible with oils and ointment bases. Hard (calcareous) water and acetic or mineral acids cause precipitation in its solutions. It is used in skin and female diseases, and internally, like ichthyol; its applications are odorless. Dose, 3 to 10 grains, in peppermint water, three times daily.

Thilanin is a sulphurated wool fat containing 3 per cent. of sulphur and employed in eczema and prurigo.

Thiocol (*potassium ortho-guaiacolsulphonate* or *sulphoguaiacolate*), $C_6H_3.(OCH_3)OH.SO_3K$, occurs as a white, odorless powder, of slightly bitter taste and sweetish after-taste; soluble readily in water or syrup, slightly in alcohol, and insoluble in ether or oils. It is used as a palatable, odorless substitute for guaiacol, in tuberculosis, typhoid fever, etc., internally. Dose, 5 to 20 grains, three times daily, in syrup or tablets (marketed also in these forms).

Thiocolin consists, according to the manufacturers, of potassium guaiacolsulphonate 6 parts, bismuth loretinate 1 part, distilled water 60 parts, and a "compound syrup" 33 parts. It is used in chronic bronchitis and phthisis chiefly. Dose, a teaspoonful to a tablespoonful thrice daily.

Thiodine is a combination of ichthyol, iodine, boroglycerin, hydrastine, carbolic acid and glycerin, marketed in the form of elastic suppositories containing 10 per cent. of the mixture. It is used in gynecological affections (pelvic cellulitis, cervical erosions, vaginitis, etc.), one suppository being inserted daily or two or three times a week.

Thioform, *basic bismuth dithiosalicylate*, $(S.C_6H_3OH.COOBiO)_2+BiO_3.2H_2O$, occurs as a yellowish-brown, odorless powder, containing 72 per cent. of bismuth oxide, and insoluble in the common solvents. It is used chiefly as a drying wound antiseptic and dermic; also as a gastro-intestinal astringent and antiseptic. Applied externally like iodoform. Dose, 5 to 15 grains.

Thiol is obtained by sulphurating certain paraffin oils and neutralizing with ammonia. *Liquid* thiol is a 40 per cent. aqueous solution of the anhydrous ammonium sulpho salt, occurring as a brownish-black liquid of faintly bituminous odor resembling that of Russia leather; soluble freely in water or glycerin, moderately in alcohol, and sparingly in ether. *Dry* thiol is the liquid form evaporated to dryness and pulverized; of bituminous odor, and bitter, slightly astringent taste. The liquid form is used pure or in ointments or solutions in skin and female diseases, like ichthyol, also internally. Thiol powder is employed chiefly in intertrigo, weeping eczema, discharging wounds, etc., usually pure. Dose, 3 to 10 grains, three times daily, in peppermint water or pills.

Thiolan, also designated as *unguentum sulfuratum mite,* is a sulphur ointment in which the sulphur is partly dissolved and partly suspended. Dr. Vorner has used it with good results in various skin diseases.

Thiopinol for baths is said to consist of alcohol, ethereal oil of pine, sulphur or a sulphide, and glycerin. The contents of one bottle is used to prepare a sulphur bath of pleasant odor.

Thiopinol Ointment, used in cutaneous affections, is said to consist of 18 per cent. of ethereal oil of pine, 1.75 per cent. of "thiopinol," 1 per cent. of glycerin, 0.75 per cent. of beta-naphtol, and 78.5 per cent. of a mixture of lanolin and petrolatum.

Thioresorcin is obtained by the action of sulphur on resorcin-alkali. It occurs as a yellowish-gray powder, slightly soluble in alcohol or ether and insoluble in water. It is used in place of iodoform as a dusting powder or ointment (5 per cent.).

Thiosapol is a generic name for soda soaps containing sulphur chemically combined with unsaturated fatty acids and used in skin diseases. The corresponding potash soaps (thiosavonals) are described under *savonal.*

Thiosavonal.—See under *savonal.*

Thiosinamine (*allylsulphocarbamide; allylsul-*

phourea), $CS(NH_2)NHC_2H_5$, occurs as colorless, bitter crystals, of garlicky odor; soluble in about 3 parts of alcohol, moderately in ether, and slightly in water. It is prescribed internally, and hypodermically as a resolvent, in cicatrices, strictures, corneal opacities, chronic deafness, etc. Dose, ½ to 2 grains, in capsules or tablet triturates three times a day, or subcutaneously two or three times a week in 10 or 15 per cent. alcoholic solution with 20 per cent. of glycerin.

Thiosinamine and Sodium Salicylate.—See *fibrolysin*.

Thiovinal, recommended in affections of the respiratory tract, consists, according to the manufacturers, of guaiacol (6), extract of thyme (20), distilled water (40), and a compound (?) syrup (34). Dose, ½ to 2 teaspoonfuls, after meals.

Thorium Nitrate, $Th(NO_3)_4+4H_2O$, occurs as white, crystalline conglomerations, readily soluble in water. Dr. S. Tracy latterly uses it by inhalation in tuberculosis, and as a 25 per cent. paste in parasitic skin diseases.

Thymiodide is a combination of thymol iodide (aristol), bismuth oxyiodide, and boric acid, occurring as a salmon-colored, odorless powder, only partly soluble in the usual solvents. It is employed as a wound antiseptic in place of iodoform.

Thymobromal is a syrup of bromoform, extract of thyme, extract of chestnut leaves, compound extract of senega, and bromal hydrate, each fluid dram containing four drops of bromoform. It is advertised as a remedy for whooping-cough.

Thymoform or *thymoloform* is a condensation product of thymol and formaldehyde, occurring as a yellowish, tasteless powder of faint thymol-like odor; readily soluble in ether, alcohol, chloroform or olive oil; insoluble in water or glycerin. It is used as a wound antiseptic, in place of iodoform. See caution under *formaldehyde*.

Thymol-urethane.—See *thymotal*.

Thymotal (*thymol carbonate; thymol-urethane; tyratol*) is an odorless, tasteless, white, neutral substance, used as a vermicide. Dose

(children), 7½ to 15 grains three or four times daily for four days, followed by a laxative.

Thymomel Scillæ is a honey extract of thymus serpyllum and squill, used in whooping-cough, laryngeal and bronchial catarrhs, etc.

Thymotol is a brand of *dithymol diiodide*.

Thymoxol is a 3 per cent. solution of hydrogen peroxide containing also 1 per cent. of thymol in alcoholic solution. It is used in 10 to 25 per cent. solution as a disinfectant and deodorant.

Thyraden is a lactose trituration of dried extract of thyroid gland, 1 part of which represents 2 parts of fresh gland. It occurs as a light-brownish, sweetish, nearly odorless powder, employed as an alterative and antifat (myxedema, struma, obesity, etc.). Dose, 2 to 8 grains three times daily, as powders or tablets (marketed also as such).

Thymyl Trichloracetate occurs as water-soluble crystals, soluble also in alcohol and ether. It is employed as a caustic and antiseptic, on new growths, indolent ulcers, etc.

Thyrein is synonymous with *iodothyrine*.

Thyreodectin is a dried thyroid serum obtained from thyroidectomied animals; a reddish-brown powder employed in exophthalmic goiter. Dose, 5 to 10 grains, three times a day, in capsules (marketed as such).

Thyroid Gland has come into vogue as a remedy in struma, myxedema, obesity, hematuria and visceral hemorrhage. Dose of the fresh gland (administered in dried form), 5 to 15 grains thrice daily, as tablets.

Thyroid Serum.—See *antithyroidin*.

Thyroidin is a dried extract of sheep's thyroid, 1 part of which repesents 6 parts of fresh gland. See *thyroid gland*. Dose, ½ to 2 grains three times daily, as tablets (so marketed).

Toluol Sugar is a trade name for *saccharin*.

Tolypyrine (*tolyantipyrine; paratolyl dimethylpyrazolone*), $C_6H_4.CH_3.N.CH_3N.CH_3C:CH.CO.$, occurs as colorless crystals, soluble in 10 parts of water, readily soluble in alcohol. It is used as an

antipyretic and analgesic. Dose, 7½ to 15 grains, two to four times daily.

Tolysal is *tolypyrine salicylate;* colorless crystals readily soluble in alcohol, sparingly soluble in water. It is prescribed as an antirheumatic and analgesic. Dose, 45 to 90 grains per day.

Tonogenum Suprarenale is a German analogue of *adrenalin chloride* solution.

Tonol is a collective brand name for the *glycerophosphosphates.*

Traumatol (*iodocrésine; cresol iodide*) is a compound of cresylic acid and iodine, occurring as a violet-red, voluminous, odorless powder, containing 54 per cent. of iodine, insoluble in water or alcohol, slightly soluble in ether and freely soluble in chloroform. It is used as a wound antiseptic, in place of iodoform.

Triacol is an aromatic, non-saccharine solution of the sodium, potassium and ethyl-morphine salts of guaiacolsulphonic acid, which salts have been named sodacol, potassacol, and ethacol. It is used in phthisis and other chronic pulmonary affections. Dose, 1 to 2 dessertspoonfuls three times daily.

Tribromanilin Hydrobromate is the chemical designation for *bromamide.*

Tribromomethane is better known as *bromoform.*

Tribromphenol (*bromol*), $C_6H_2.Br_3OH$, forms white to reddish crystals, soluble in alcohol, chloroform, glycerin or ether, insoluble in water. It is used as an external and internal antiseptic, in diphtheria, putrid wounds, typhoid fever, cholera infantum, etc. Dose, 1 to 3 grains, children in proportion. Applied externally in 4 to 10 per cent. paints, ointments or powders.

Tribromphenol-bismuth.—See *xeroform.*

Trichlorethylenenimide is *chloralimide* (not chloralamide).

Trichlorisopropyl Alcohol.—See *isopral.*

Trichlorphenol Crystallized is described under *omal.*

Trichophytin is the filtered culture of trichophyton (a genus of fungoid organisms parasitic

upon the hair), freed from fungous elements and containing ¼ of 1 per cent. of carbolic acid as a preservative. It is used in trichophytosis, herpes tonsurans and similar diseases of the hair.

Triferrin is *iron paranucleinate*, and forms a reddish powder, containing 22 per cent. of iron, 2½ per cent. of phosphorus, and 9 per cent. of nitrogen. Soluble in weak solution of sodium carbonate; insoluble in the common solvents. It is prescribed as a hematinic, in anemia, chlorosis, convalescence, etc. Dose, 5 to 10 grains, three times daily. Marketed also as 5-grain tablets.

Triferrol is an elixir of triferrin containing 1½ per cent. of triferrin. Dose, a tablespoonful.

Triformol.—See *trioxymethylene.*

Trigemin results from the action of butylchloral hydrate upon pyramidon. It occurs as long, white needles, of faint, aromatic odor and slight taste; soluble freely in water. Dr. Overlach recommends it in migraine, facial neuralgia, headaches from overwork, etc. Dose, 7½ to 15 grains once or twice daily. It is hygroscopic and prone to turn yellow to brown in color, when it is said to cause gastric pain and hence is no longer eligible for use.

Trikresol is a natural mixture of para-, meta-, and ortho-cresol. It occurs as a colorless, oily liquid, specific gravity 1.045, soluble in about 45 parts of water and freely soluble in alcohol. It is used chiefly as a surgical disinfectant and antiseptic dermic, in ½ to 1 per cent. solution.

Trikresolamine.—See *kresamine.*

Trinophenone is an aqueous solution of picric acid (trinitrophenol), used in burns.

Trional · (*diethylsulphonemethylethylmethane; sulphonethylmethane* U. S. P.) is obtained by condensation of ethyl sulphydrate (ethylmercaptan) with methylethylketone, and oxidation of the resultant mercaptol with potassium permanganate. Its formula is $CH_3.C_2H_5{=}C{=}(SO_2C_2H_5)_2$, and it occurs as colorless, odorless, bitter scales, soluble in 47 parts of alcohol, 45 of ether, 16 of chloroform, and 195 parts of water, at 25° C. It is prescribed as a hypnotic and nerve sedative. Dose, 15 or 20

grains, Triturated with chloral hydrate it yields a soft mass or a liquid.

Triosine is being advertised in the medical press as "a combination of the most desirable principles of triticum and pelosine with saline and herbal diuretics; a diuretic for use in nephritis." Dose, tablespoonful three or four times daily.

Trioxyacetophenone.—See *gallacetophenone.*

Trioxymethylene, commonly but erroneously called *paraformaldehyde* and *paraform*, also *triformol*, is a polymer of formaldehyde occurring as a white powder evolving formaldehyde even at ordinary temperature but more rapidly when heated. It is insoluble in water, alcohol or ether; and is employed chiefly to generate formaldehyde gas by heating, and used only to a slight extent as an intestinal disinfectant in infectious diarrheas and externally, as a wart destroyer. Dose, 5 to 15 grains. See caution under *formaldehyde.*

Triphenin (*propionyl-phenetidin*) is obtained by boiling a mixture of paraphenetidin and propionic acid, and occurs as a white, odorless powder, of faintly bitter taste, soluble in 2000 parts of water, more readily in alcohol and ether. It is used as an antipyretic and analgesic, similarly to phenacetin. Dose, 5 to 20 grains.

Tritoles are triturations of oils with substances capable of effecting minute subdivision of the oils. Malt extract is used largely, because it excellently emulsifies the oils and makes stable emulsions. Castor oil, male fern oleoresin and cod liver oil tritoles are among the combinations marketed.

Tropacocaine Hydrochloride (*benzoylpseudotropeine hydrochloride*), $C_8H_{14}NO(C_7H_5O)$, is a salt of an alkaloid found in certain varieties of coca, but prepared also synthetically. It occurs as white needles freely soluble in water. It is employed as a local anesthetic in place of cocaine hydrochloride, the claims being made for it that it is less toxic and its solutions more stable than those of cocaine hydrochloride and sterilizable by

boiling without decomposition. From 3 to 5 per cent. solutions are used.

Trophonine is advertised as a nutritive and invigorator for invalids, "composed of beef, nucleoalbumin and wheat gluten, together with the enzymes of the digestive glands." It is given in teaspoonful doses frequently.

Trygase is defined as a pefectly pure yeast. It occurs as a light-gray powder, having the odor and taste of yeast and insoluble in water. It is intended for use like other yeast preparations. (See *levurin.*)

Trypsogen Tablets contain the sugar-oxidizing ferments of Langerhans' glands, trypsin, ptyalin, and amylopsin, combined, 5 grains; also gold bromide 1/100 grain and arsenic bromide 1/200 grain. They are employed in diabetes. Dose, 1 to 3 tablets thrice daily.

Tubocurarine.—See *curarine.*

Tuklin is defined as an acid formalin alcohol ether, and is employed mixed with ethereal oils by inhalation in diseases of the throat and respiratory tract. See caution under *formaldehyde.*

Tumenol (*tumenolsulphonic acid*) is derived from bituminous mineral by dry distillation and subsequent treatment with sulphuric acid and alkalies. Three modifications are marketed: tumenol *paste*, from which the tumenol *oil* and *powder* are obtained. The oil is a dark-yellow viscid liquid, insoluble in water, but freely so in ether or alcohol. The powder is soluble in water. Tumenol is used in skin diseases chiefly; the oil pure or as spirit; the paste in 5 to 10 per cent. ointments or tincture, and the powder in 2 to 5 per cent. solutions (on compresses) or with zinc oxide as dusting powder. Incompatible with ferric salts, potassium permanganate and corrosive sublimate.

Tumenol-ammonium is an improved tumenol that yields better ointments than the older forms. Dr. Klingmüller states that it irritates less than the older preparations, while being equally efficacious. See *tumenol.*

Turicin is defined as a "chemical compound of

tannic acid and glutenin;" a flesh-colored powder, of unpronounced odor and taste, insoluble in the ordinary solvents but dissolving in dilute alkali solutions; tannin content about 21 per cent. It is used as an intestinal astringent. Dose, 10 to 30 grains. Marketed also as *baby* turicin. which consists of 20 per cent. of turicin, 70 per cent. of aleuronat, starch and corrigents.

Tussiculin is a cough remedy, said to contain the ethereal oils of serpyllum and persica vulgaris, besides cajuput oil and the active principles (?) of alkanet.

Tussol (*phenylglycolantipyrin; antipyrin amygdalate or mandelate*), $C_6H_5CH.OH.COOH.C_{11}H_{12}N_2O$, occurs as a white powder readily soluble in water and decomposed by alkalies and milk. It is prescribed as an antispasmodic, chiefly in whooping cough. Dose, ¾ to 7½ grains, according to age, four to six times daily, in sweetened solution.

Tutulin is a pure vegetable albumin, occurring as a whitish, water-soluble, nearly odorless, tasteless powder, employed as a nutritive. Dose, teaspoonful or more per day in soup or other liquid food.

Tyalid is a combination of ptyalin, pancreatin and malt diastase, used particularly in amylaceous dyspepsia. Dose, 5 to 10 grains. Marketed also as tablets and elixir.

Typhase is another name for Klemperer's *typhoid fever antitoxin*.

Typhoin is a sterilized culture of typhoid bacilli, used hypodermically in typhoid fever. Dose, 0.15 to 0.25 c.c. daily.

Tyratol is described under *thymotal*.

Tyrosal is a trade name for *antipyrin salicylacetate*, described under *acetopyrine*.

Tysin is a trade name for a solution of *formaldehyde*. See caution under *formaldehyde*.

U

Ulmaren is defined as a natural mixture of the salicylic acid esters of certain higher aliphatic alcohols. It forms a heavy, yellowish-red, refractive liquid, of faint, salol-like odor, readily soluble in alcohol, difficultly soluble in ether and chloroform, and insoluble in water. It contains 75 per cent. of salicylic acid, and is used locally in rheumatism, neuralgia and gout, as a paint undiluted or in 30 per cent. ointment with lanolin containing 5 per cent. of menthol. Dose per application, 45 to 60 minims.

Ulyptol is an antiseptic consisting of a mixture of carbolic acid, eucalyptus oil and salicylic acid.

Unguentole is a preparation similar to the older unguentine—"a non-irritant alum ointment with omoform 5 per cent., carbolic acid 3 per cent., ichthyol 5 per cent., with solidified petroline as a base." It is used in burns, ulcers, and other cutaneous affections.

Unguentum Caseini is a skin varnish used by Unna, consisting of alkali caseinate, glycerin, and petrolatum. It dries quickly and is easily removable by means of water. All sorts of medicaments save acids, which coagulate the casein, can be easily incorporated with it.

Unguentum Crede is a 15 per cent. ointment of collargol, 5 per cent. of water, 10 per cent. of white wax, and 70 per cent. of benzoinated lard. It is used by inunction in mild cases of puerperal sepsis, in phlegmon, carbuncle and other infections; also as a prophylactic of septic infection after childbirth, etc. Dose, 45 grains per inunction.

Unguentum Durum is what F. Miehle calls an ointment base consisting of hard paraffin 4 parts, wool fat 1 part and liquid paraffin 5 parts.

Unguentum Formentoli contains 5 and 10 per cent. of formaldehyde, and a little menthol, in a

glycerin and starch base, and is employed in excessive sweating of the feet. See caution under *formaldehyde*.

Unguentum Gynocardicum is a mixture of 1 part of chaulmoogra oil and 3 parts of petrolatum. It is used in chronic rheumatism, leprosy and gout.

Unguentum Heyden is an ointment containing 45 per cent. of calomelol (colloidal calomel) and 2 per cent. of free mercury. It is of smooth consistence, nearly odorless, and of a pale-gray color. It is used by inunction in place of mercurial ointment in syphilis. Marketed in special tubes with graduated labels.

Unguentum Molle of F. Miehle is a mixture of 22 parts of hard paraffin, 10 parts of wool fat and 68 parts of liquid paraffin. With an equal weight of glycerin it yields a homogeneous, smooth ointment, and readily takes up its own weight of water.

Unguentum Psoriaticum is what Rosenberg names a mixture of 5 parts of chrysarobin, 2 of ichthyol and 3 of "unguentum Zymoidini." As its name indicates, it is used in psoriasis.

Unguentum Vegetabile is an ointment base consisting of an emulsion of wax and oil.

Uraline or *uralium* is *chloral urethane*, $CCl_3.C.(OH)H.NO.CO_2.C_2H_5$, occurring as a white powder insoluble in cold water and decomposed by boiling water. It is occasionally prescribed as a hypnotic. Dose, 30 to 45 grains.

Uranium Nitrate occurs as yellow crystals, soluble in water, alcohol or ether. It is used in diabetes. Dose, 1 to 2 grains, gradually increased to 15 grains, two or three times daily. Incompatible with chloral hydrate or lead acetate.

Urea (*carbamide*), CH_4N_2O, though by no means a new substance, has only in recent years come into vogue as a therapeutic agent. As is known, it is a constituent of urine; but it is also formed artificially by heating a solution of ammonium cyanate. It occurs as white crystals, soluble in water and alcohol, and it is prescribed as a diuretic, antilithic and antitubercular—chiefly

in renal calculus and phthisis. Dose, 10 to 20 grains, in solution.

Urea-formaldehyde.—See *uroform.*

Urea Quinate (*chinate*).—See *urol.*

Urea Salicylate is described under *ursal.*

Uresin is the name applied to the double salt *lithium and hexamethylenetetramine citrate,* a white powder soluble in water, intended as a uric acid solvent in gout, gravel, etc. Dose, 5 to 15 grains several times daily. (Not to be confounded with *urosine.* See caution under *formaldehyde.*

Urethane, though but little used by American physicians, has been officialized in the United States under the name *ethyl carbamate;* it is also known as *ethyl urethane,* and as *carbamic acid ethyl ester.* It results from the action of alcohol upon urea or one of its salts, and occurs as colorless, nearly odorless crystals of saline taste, soluble in 1 part of water, 0.6 of alcohol, 1 of ether, 1.3 of chloroform and 3 of glycerin. It is prescribed as a hypnotic, antispasmodic and nerve sedative, in insomnia, eclampsia, tetanus, strychnine poisoning, etc. Dose, 10 to 30 grains, in solution. Incompatible on trituration with antipyrin, butyl-chloral hydrate, camphor, carbolic acid, menthol, naphtol, resorcin, salol or thymol; also with acids or alkalies.

Uricedin is a yellowish compound consisting of sodium citrate, sodium sulphate, sodium chloride, sodium acetate, sodium tartrate, sodium malate, iron, sodium pectinate and extractives. It is employed as a uric acid solvent in gouty manifestations. Dose, ½ to 1 teaspoonful in hot water before breakfast.

Uricene is a uric acid solvent in tablet form of undivulged composition. It is advocated for use especially in rheumatism.

Uriform, advertised as a "urinary disinfectant" is said to be a mixture of hexamethylenetatramine, saw palmetto, sandalwood, damiana and coca. The preparation must not be confounded with uroform. See caution under *formaldehyde.*

Urisolvin is said to be a mixture of urea with

lithium citrate. It is claimed to be a uric acid solvent. Dose, 30 grains every 3 hours.

Uristamine and Uritone are two of the numerous trade names for *hexamethylenetetramine.*

Urocitral is the name applied to the double salt, *theobromine sodium and sodium citrate* occurring as a white alkaline powder of saline-bitter taste. It has diuretic effect.

Urocol is a trade name for tablets, each containing 0.5 gram of urea quinate (urol), 0.9 gram of milk sugar and 0.001 gram of colchicine. The article is used in gout. Dose, 3 to 5 tablets per day.

Uroform is a compound of urea with formaldehyde, also known as *urea-formaldehyde.* See caution under *formaldehyde.*

Urol (*urea quinate*) is a compound of two molecules of urea and one molecule of quinic acid, of the formula $C_7H_{12}O_6.(CO)_2(NH_2)_2$. It occurs as white prisms of acid reaction and readily soluble in water and alcohol. It is prescribed in gout, gravel and other morbid conditions ascribable to excess of uric acid. Dose, 15 to 30 grains.

Urolysin is a compound of vanadium-sodium citro-chloride with quinic acid (10 per cent.), combined as an effervescent powder. It is prescribed in gout.

Uron is a trade name for *hexamethylenetetramine.*

Uropherin.—See *theobromine-lithium and lithium benzoate* and *salicylate* respectively.

Uropural is the fanciful name applied by Werler to an extract of uva ursi with or without other drugs. The article is marketed as Tablets No. I, containing 0.25 gram of the extract alone (equal to 1 gram of the leaves); Tablets No. II, consisting of 0.25 gram each of the extract and of salol; Tablets No. III, containing 0.25 gram each of hexamethylenetetramine and the extract of uva ursi; and Tablets No. IV, each containing 0.25 gram each of aspirin and the extract. Used in cystitis, etc. See caution as to No. III under *formaldehyde.*

Urosine, advertised as *lithium quinate*, is in

reality a mixture in tablet form of 0.5 gram of quinic acid, 0.15 gram of lithium citrate and 0.3 gram of sugar per tablet. It is readily soluble in water, sparingly in alcohol and insoluble in chloroform or ether. It is intended as a uric acid solvent in daily quantities of 4 to 10 tablets. Marketed also as *effervescent* urosin, a small teaspoonful of which represents 15 grains of urosine.

Urosterile Tablets No. I each contain 0.25 gram of dried extract of pichi-pichi; No. II contain 0.25 gram of the pichi-pichi extract with 0.125 gram each of salol and tannic acid. They are employed in diseases of the urinary organs.

Urotropin is a trade name for the most commonly used brand of *hexamethylenetetramine*, which title see.

Urotropin New is *urotropin methylenecitrate*, a chemical described under the commonly known trade name, *helmitol*.

Urotropin and Lithium Citrate.—See *uresin*.

Urotropin Quinate (*chinate*).—See *chinotropin*.

Ursal is *urea salicylate*, and is used in rheumatism and gout in the same dose as sodium salicylate.

Ursin is described as a compound of lithium and quinic acid analogous to if not identical with *urosin*. It is marketed in 50 per cent. solution and as effervescent powder.

Urstyamine is described chemically as *hexamethylenetetramine and lithium benzoate; a* white powder easily soluble in water. It is employed in gout, rheumatism, cystitis, etc. Dose 15 grains every morning in carbonated water. (Not to be confounded with uristamine.) See caution under *formaldehyde*.

V

Valenta's preparations are mixtures of ichthyolsalicyl with various medicaments. The following compound "absorption pills" of Dr. Valenta are marketed: No. I, containing ichthyolsalicyl with "diuretic mass"; No. II, ichthyolsalicyl-atoxyl pills, used in tuberculosis, diabetes, etc.; No. III, ichthyolsalicyl-hetol pills, that is, pills of ichthyolsalicyl and sodium cinnamate, employed in tuberculosis; No. IV, ichthyolsalicyl-lithia pills, prescribed in gout, gravel, etc.

Valerobromine is a French specialty defined as *sodium bromovalerianate*, but presumably a mixture or double salt of sodium bromide and sodium valerianate. It occurs as a crystalline, water-soluble mass, and has the combined action of valerian and the alkali bromides. Dose, 7½ to 20 grains.

Valerydin (*para-valerylphenetidin*), also known as *sedatin*, $C_6H_4(OC_2H_5)NH.C_5H_9O$, results when valerianic acid is heated with para-phenetidin, and forms needles soluble in alcohol. It is employed as a nerve sedative and antipyretic in doses of 7½ to 15 grains several times daily.

Valerylphenetidin. See *valerydin*.

Validol is defined as *valerianic acid menthyl ester* or *menthol valerianate*, $C_{10}H_{19}.C_5H_9O_2$, to which 30 per cent. of free menthol has been added. It occurs as a thick, colorless, clear liquid, of mild, pleasant odor, and cooling, slightly bitter taste. It is used as a nerve sedative, analgesic and carminative, in hysteria, gastralgia, seasickness, syncope, etc. Dose, 10 to 20 drops, on sugar or in capsules. *Camphorated validol* is a 10 per cent. solution of camphor in validol, used in debilitated conditions as a stimulant, and as a dental anodyne in toothache from carious teeth.

Valofin is an aromatized liquid of pleasant taste when diluted. It is offered as a substitute for infusion of valerian and the like as a nervine

and antispasmodic. Dose, 10 to 25 drops, in hot sweetened water.

Valose is an albuminous nutritive prepared from meat.

Valsol is an English analogue of *vasogen*, which see.

Valyl is the trade name for *valerianic acid diethylamide*, $C_4H_9.CO.N(C_2H_5)_2$. The article occurs as a colorless liquid, of a pungent and disagreeable odor, and a burning, valerian-like taste. It is prescribed as a nerve sedative and antispasmodic, in hysteria, cardiac palpitation, migraine, menstrual pains, etc. Dose, 2 to 4 minims, two or three times daily, in 2-minim capsules (so marketed).

Vanadin (Weber) is a solution of a vanadium salt (?) with sodium chlorate. It is used as an antiseptic in pulmonary tuberculosis. Dose, 6 to 30 drops daily.

Vanadine is a trade name latterly applied to *vanadic acid* (vanadium pentoxide), V_2O_5, a brown powder insoluble in the ordinary solvents. The product is used in disturbances dependent upon sluggish metabolism, particularly in tuberculosis. *Vanadine-sanguinal* pills each contain 1/650 grain of vanadic acid and 1½ grains of sanguinal. Dose, 2 or 3 pills before meals. *Vanadine dusting powder* consists of vanadic acid and zinc peroxide, and is intended as a wound antiseptic.

Vanadiol Hélouis, is not, according to Prescher, a vanadium compound, but a solution of sodium hypochlorite; probably nothing but Labarraque's solution.

Vaseloxyne is another analogue of *vasogen*.

Vasenol is an emulsion of petrolatum, containing 25 per cent. of water; a yellowish-white, smooth, ointment-like substance which can take up several times its weight of water and is miscible with fats, salts, powders, etc. Vasenol *liquid* is a white, neutral emulsion of paraffin oil containing 33⅓ per cent. of water, readily emulsifiable with aqueous fluids, and employed as an emollient base for liniments, creams, etc., to be used

on burns, as well as a lubricant for catheters, etc. Vasenol *powder* carries 10 per cent. of vasenol. *Vasenol mercury* is a smooth 33⅓ per cent. mercurial ointment. *Vasenol-formalin* is an antihydrotic foot-powder, consisting of vasenol powder, 5 to 10 per cent. of formaldehyde solution, and 1 per cent. of salicylic acid. It is well rubbed into the feet after previous ablution with 1 per cent. alcoholic solution of salicylic acid. See caution regarding formaldehyde compounds under *formaldehyde*.

Vasogen is defined as *oxygenated vaseline*. It is a faintly alkaline, yellowish-brown semi-liquid mass, forming emulsion-like mixtures with iodine, creosote, quinine, salicylic acid and other water-insoluble medicaments, which are readily absorbed through the skin. It is hence employed as an inunctionary vehicle in endermic medication. It is marketed in combination with naphtol, camphor-chloroform, guaiacol, ichthyol, iodoform, menthol, methyl salicylate, and thiol respectively, besides the drugs named above; also as *solid* vasogen (of ointment consistence), mercury-vasogen ointment, and capsules of a number of combinations (creosote, iodine, etc.).

Vasol is, according to Kottmeyer, a product similar in every respect to the better-known *vasogen*, and marketed also as *iodovasol*, a clear, brown fluid containing 7 per cent. of iodine.

Vasolimentum, proposed as a succedaneum for *vasogen*, is essentially an emulsion of ammoniacal oil soap, alcohol and paraffin. The *liquid* form is prepared from liquid paraffin, oleic acid and spirit of ammonia; the *solid* vasolimentum from hard paraffin, oleic acid and spirit of ammonia. Similarly to vasogen, it readily takes up water-insoluble drugs and easily penetrates the skin. Combinations of vasolimentum with creolin, with chloroform and camphor, juniper tar, eucalyptol, guaiacol, mercury, iodoform, ichthyol, iodine, creosote, menthol, naphtol, tar, salicylic acid, sulphur and thiol are also made.

Vasopolentum is described as an olein-paraffin which in the solid form serves as an ointment

base and in the liquid form as a solvent and vehicle for various medicaments, and thus intended as a substitute for vasogen and its compounds. The solid variety is also marketed combined with mercury (40 per cent.).

Vasothion is a preparation analogous to thiosapol and thiosavonal, containing about 10 per cent. of organically combined sulphur. It is made from vasogen. It is used in skin diseases, as ointment or emulsion.

Vasoval is a counterpart of *vasogen*, employed as an inunctionary vehicle in endermic medication.

Vellolin is a brand name of wool fat.

Velopurin is an ointment base obtained by dissolving 60 to 150 grams of oil soap in 1000 c.c. of alcohol, filtering, and thoroughly incorporating 50 to 100 grams of olive oil, continuing energetic trituration until a homogeneous mass results.

Veratrol (*pyrocatechin dimethyl ether*), $C_6H_4(OCH_3)_2$, occurs as a liquid soluble in alcohol, ether and fatty oils. It is used externally as a paint in intercostal neuralgia, and combined with potassium iodide topically in orchitis, as well as internally in tuberculosis. Dose, 2 drops three times daily, in capsules.

Veratrone is a clear, amber-colored, non-alcoholic, aqueous fluid extract of veratrum viride, having a pleasant odor and a slightly bitter taste. It is one-fourth the strength of the official fluid extract of veratrum. Chloretone is added as a preservative. It is intended especially for hypodermic use, being far less irritating than the older liquid forms of veratrum. It is recommended in particular for the treatment of eclampsia. Dose, 10 to 20 minims.

Veroform.—See *lysoform*.

Veronal is the trade name for *diethylmalonylurea* or *diethylbarbituric acid*, $(C_2H_5)_2.C.(CO)_2.(NH)_2.CO$. The compound forms small, colorless, odorless, slightly bitter crystals, soluble in 145 parts of water, more readily soluble in alcohol. It has come into vogue as a hypnotic and nerve seda-

tive, particularly in cases of insomnia and excitation not due to violent pain. Dose, 7½ to 15 grains.

Vetrinol is a *veterinary unguentine*.

Viferral is a polymer of anhydrous chloral, resulting from the action of pyridine upon chloral, and occurs as a white powder, of unpleasant taste, melting at 153° C., slowly soluble in cold water and decomposed by hot water. It is prescribed as a hypnotic, especially in nervous insomnia where there is much excitement and no pain. Dose, 15 to 30 grains, in wafers or tablets (swallowed quickly). Marketed also as 1-gram tablets.

Vioform (*iodochloroxyquinoline*), $C_9H_5NOHIHCl$, occurs as a greenish-yellow, practically odorless, very bulky powder, insoluble in the common solvents and employed as an antiseptic vulnerary similarly to iodoform. Marketed also as gauze, 2½ and 5 per cent.

Viscin is described as a glutinous substance obtained from viscum aucuparium and resembling bird-lime. It is employed as a vehicle for cutaneous remedies.

Vitalin is a disinfectant mixture of resin soda soap and resin oil. It has a strong, bituminous odor.

Vitogen is a mixture of boric acid with other antiseptics, employed as a vulnerary and cicatrizant, undiluted.

Vitose is an ointment base described as being "glycerin and oil albuminate; odorless, neutral, non-irritating, and not becoming rancid." Incompletely soluble in chloroform, benzene, or ether; takes up almost any proportion of water, oil, or other fats; melting point, 28°C.

Vixol is a remedy for asthma, hay fever, etc., of undivulged constitution. It is used in an atomizer. According to analysis, it contains atropine.

Volesan capsules are said to contain 0.3 gram of carbonated creosote, 0.0025 gram of heroin, 0.25 gram of tolu balsam, and 0.065 gram of camphor. They are used in diseases of the respiratory tract. Dose, 3 to 6 capsules per day. See caution regarding heroin under *heroin hydrochloride*.

Vulnoplast is a dressing material for wounds, consisting of three closely compressed layers, the undermost of which is mull, upon which an ointment with a gelatin base is spread. Dr. Benario has selected as the medicaments 10 per cent. of protargol and 5 per cent. of xeroform, which act as antiseptics and astringents. The middle layer is absorbent cotton and the outer one muslin or cheese cloth.

W

Wilburine is a brand name for yellow *petrolatum*.

Wismol is a mixture of magnesium peroxide with bismuth oxide (about 25 per cent.), occurring as a white, odorless, fine powder, insoluble in the ordinary solvents. It is heralded as a substitute for iodoform externally, readily liberating oxygen on contact with wound secretions.

Wuk is an aqueous yeast extract, occurring as a light-brown powder of feeble odor and freely soluble in water. It is intended to serve as a substitute for meat extract, though lacking the salts and bases of the latter as well as its stimulating properties.

X

Xanol is a trade name for *caffeine sodio-salicylate*, a double-salt of caffeine freely soluble in water and hence adapted for subcutaneous injection.

Xanthopicrit is a trade name for *berberine*.

Xeroform (*tribromphenol-bismuth, bismuth tribromophenate*), $Bi_2O_3(C_6H_2Br_3OH)BiOH$, occurs as a yellow, nearly odorless, tasteless powder, containing 50 per cent. of bismuth oxide and insoluble in the ordinary solvents. It is used externally as an antiseptic and drying vulnerary and dermic; internally as an intestinal astringent and disinfectant. Dose, 10 to 15 grains several times daily.

Xylene (*xylol; dimethylbenzene*), $C_6H_4(CH_3)_2$, occurs as a colorless liquid of peculiar odor and is used internally in small-pox in doses of 10 to 20 drops four to six times daily until the exanthema has disappeared.

Y

Yanatas is said to be a 1 per cent. solution of chloral hydrate in water colored red. It is extolled as a remedy for sea-sickness.

Yoghourt is a Turkish fermented milk made from milk boiled down to two-thirds or one-half its original volume. It is said to be a good nutritive as well as diuretic.

Z

Zinc Alumnol is described under the title *zinol*.

Zinc Cyanide, $Zn(CN)_2$, occurs as a white powder soluble in potassium cyanide solution and insoluble in water or alcohol. It is administered in doses of 1/12 to ⅛ grain several times daily in epilepsy, hysteria, whooping-cough, carcinoma of the stomach, etc.; also in cardiac affections.

Zinc Formasal is the zinc salt of formasal (methylene disalicylic acid). It is used in the treatment of skin affections. See caution under *formaldehyde*.

Zinc Gallate (*zinc subgallate*) is a grayish-green powder insoluble in the ordinary solvents. It is prescribed in intestinal fermentation, phthisical night-sweats, eczema, gonorrhea, etc. Dose, 1 to 4 grains several times daily; applied externally pure, or as 10 to 20 per cent. dusting powder or ointment.

Zinc Hemol is a compound of hemol with 1 per cent. of zinc; a dark-brown powder, insoluble in the usual solvents. It is used in chlorosis, chronic diarrhea, etc. Dose, 5 to 10 grains three times daily.

Zinc Perhydrol is a white, odorless, insoluble powder, consisting of 50 per cent. of zinc peroxide

(ZnO_2) and 50 per cent. of zinc oxide. With acids it develops hydrogen peroxide, which acts as a disinfectant and antibacterial. It is hence intended for use on wounds, ulcers, in skin diseases, uterine diseases, etc. It is applied as dusting powder with tartaric acid, or in 10 per cent. ointment.

Zinc Permanganate, $Zn(MnO_4)_2+H_2O$, forms almost black crystals, readily soluble in water. It is used as a disinfectant and astringent in gonorrhea (1:4000 solution), eye diseases (1 to 2:1000 solution), etc. It should not be brought into contact with extracts, with alcohol, glycerin or other organic solvents, lest explosion occur.

Zinc Peroxide. See *dermogen* and *zinc perhydrol.*

Zinc Peroxide Soap, ten per cent. is said to be powerfully antiseptic, yet non-irritating to the skin. It is intended both for dermatological and surgical purposes.

Zinc Salicylate, $Zn(C_6H_4.OH.COO)_2+3H_2O$, occurs as white needles soluble in water and in alcohol. It is used externally in dermatological practice in substance or as "Itallie's zinc-gelatin," and internally as a nervine analogously to zinc valerianate. Dose, ½ to 1 grain three times daily.

Zinc Sozoidole. See under *sozoiodole.*

Zinc Sulphocarbolate (*zinc sulphophenylate* or *phenolsulphonate*), $Zn(C_6H_4OHSO_3)+8H_2O$, forms colorless or faintly pinkish prisms soluble in water or alcohol. It is employed as an antiseptic and astringent externally, in gonorrhea and on wounds, in ½ to 1 per cent. solution; as an antizymotic and disinfectant in typhoid fever, etc. Dose, 2 to 4 grains.

Zinc Tannate (*sel de barnit*), $Zn_3(C_{27}H_{19}O_{17})_2$, occurs as a gray powder insoluble in water and alcohol, soluble in diluted acids. It is used as an astringent internally in doses of 1 to 3 grains several times daily; externally in gonorrhea, in 1:1500 to 5:1500 suspension in thin mucilage.

Zinol (*zinc alumnol*) is an external anti-gonorrheal remedy consisting of 1 part of zinc acetate and 4 parts of alumnol; employed in solution.

Zitronenthee (German). See *lemon tea.*

Zomol is a desiccated meat juice extolled for use in tuberculosis. It occurs as small, red, very hygroscopic scales, almost completely soluble in water. It is administered in bouillon, milk, water, etc. Dose, 10 to 30 grains.

Zuckerin is a trade name for *saccharin.*

Zymin is a dried, sterilized yeast, marketed in powder form, tablets and bougies. The powder is used on wounds and cutaneous lesions. The tablets are employed internally in furunculosis, obstinate skin diseases, etc. Dose, 15 grains (one tablet) three times daily. The bougies consist of 40 per cent. of zymin, 40 per cent. of sugar, and 20 per cent. of a water-soluble indifferent excipient. They are intended for use in gonorrhea of women.

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